The OIL WEEKLY

10¢ A COPY

Exclusively Devoted To The Production and Transportation of Oil and Gas

November 2, 1928 **Volume 51. No. 7**

at Santa Fe Springs

Wilson Tools

preferred

15 *to* 1

One of the largest supply companies in California made a careful check of the Santa Fe Springs Field to ascertain, for their own information, the number of tools in service. Every drilling rig was checked and the result, as it pertains to two of our principal products—TONGS AND ELEVATORS—is authentically as follows:

TONGS

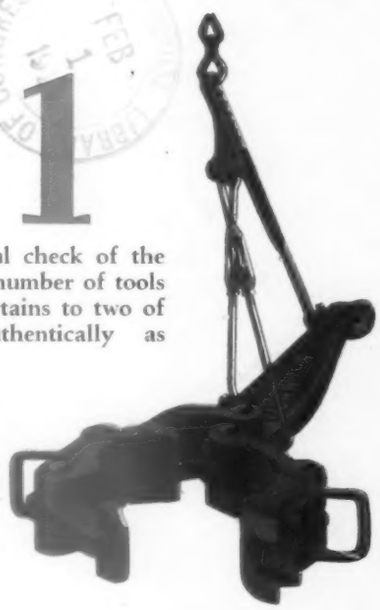
New Wilson Tongs	130
Wilson Tongs approximately six months old	118
Total Wilson Tongs	248
As Compared With	
Our nearest competitor's Total of only	30

ELEVATORS

New Wilson Eelevators on the rigs	138
Wilson Elevators that showed some wear	124
Total Wilson Elevators	262
As Compcred With	
Our nearest competitor's Total of only	4

This makes a total of 510 Wilson Tongs and Elevators and only 34 of our nearest competitor's product.

THIS REPORT SPEAKS FOR ITSELF!



Wilson 2-Step Spring-Latch Rotary Tong

Wilson Double Extra-Heavy and Triple Extra-Heavy Side-Door Speed Elevator.

Wilson Oil Tools Corp.
DISTRIBUTORS FOR
Wilson & Willard Mfg Co.
Factory and Distributor's Office 3301 East Vernon Ave.
Los Angeles, Calif.

Factory Rrepresentatives:

Tulsa, Okla.
409 Atlas Life Bldg.
Houston, Texas
220 Breckenridge St.
Big Spring, Texas
15 New Lester Fisher Bldg.
Fort Worth. Texas
814 Dan Waggoner Bldg.

First in
Safety
Strength
Speed and
Convenience

One tool that makes any type manifold

COMBINATION TUBING CONTROL HEAD and TUBING BLOWOUT PREVENTER

With this ONE tool at the head of your casing string, you can—

—Run tubing in under pressure.

—Control production on flowing wells.

—Change to any type of air or gas lift recovery.

—Change again to pumping.

—*WITHOUT NEW EQUIPMENT.*

Tested and Guaranteed to 1200 lbs. Pressure per Square Inch.

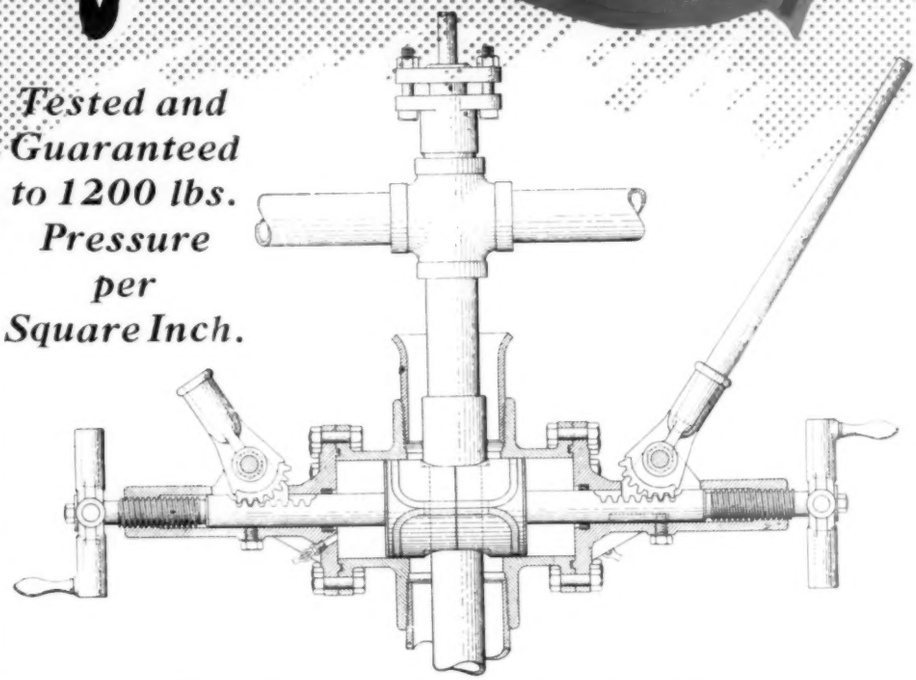


Illustration Shows Hook-Up for

Pumping Wells

WITH THIS TOOL it is not necessary to change your well hook-up in order to put the well on the pump. Just remove the tubing spider and slips from the "an or gas lift" assembly, and let the tubing coupling rest on the machined shoulder at top of rams—thereby suspending the tubing and packing it off securely from the casing at the same time. This stuffing box assembly can be attached in very short time, and the well placed on production.

Write for Literature Fully Describing Every Operation

CAMERON IRON WORKS

Manufacturers of
Oil Well Supplies and Specialties

HOUSTON, TEXAS

The OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 3301 Buffalo Drive, Houston, Texas. Subscription price $1.00 per year; 10 cents per copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1897.

One step ahead!
Here is illustrated a heavy duty, self - lubricating, enclosed Gaso. And here are some of the features—
Designed for pumping oil or water at pressures up to 1400 pounds.
Completely enclosed. Photo shows part of cover removed.
Self-lubricating, every part running in oil bath.
Continuous tooth herringbone gears, center driven
Interchangeable liner fluid end in sizes from 2½ to 7 inches with 10-inch stroke.
Pinion shaft bearings are TIMKEN ROLLER BEARINGS. Main bearings are lined with genuine babbitt.
Of course, you will want the full details of this Gaso model. A letter will bring them to you. Address
GASO PUMP & BURNER MFG. CO. Tulsa, Oklahoma
Texas Office: 210 Petroleum Bldg., Ft. Worth, Texas
GASO PUMPS
for every oil industry need

Say you saw it in The OIL WEEKLY

Why

do producers who really know the oil business in all of its branches PURCHASE TRET-O-LITE?

Why

are the majority of producers in the many different fields who have cut oil problems USING TRET-O-LITE?

Why

do so many producers—both large and small—who keep close check on the most efficient and economical Methods USE TRET-O-LITE?

Tret-O-lite

Reg. U. S. Pat. Off.

W. S. BARNICKEL & CO.
Webster Groves, Mo.

Midnight, December 12th, 1928, the Perkins Patent covering the one and two plug process of cementing wells will expire, therefore, becoming public property, and each and every person will have a right to use this process.

With the expiration of the Perkins Patent our license agreement with the Perkins Company which fixed our price to the operators and the royalty which we paid for using the Perkins Invention will also expire, making it possible for the Halliburton company to materially reduce its price for cementing oil wells.

HALLIBURTON
OIL WELL CEMENTING COMPANY
DUNCAN, OKLAHOMA

Say you saw it in The OIL WEEKLY

Lower Costs *with* Centrifugals

Byron Jackson centrifugal pipe line pumps, wherever used, are demonstrating their ability to lower operating costs. This is due to their ruggedness, reliability, simplicity, lower first cost and lower maintenance. Byron Jackson centrifugal pumps are standard equipment with many of the biggest oil companies.

BYRON JACKSON PUMP MFG. CO.
Factories: BERKELEY, Los Angeles, Visalia
Branches: San Francisco, Portland, Salt Lake, Dallas, Phoenix

BYRON JACKSON

CENTRIFUGAL PUMPS FOR EVERY SERVICE

An open letter to

Herb Hoover & Al Smith

R.S.V.P.

Dear Herb and Al:

I have heard a good deal about what Hoover and Smith intend to do for the farmers, but what I want to know is, what do these birds intend to do for the plumbers and steamfitters? There is a good deal of unrest among the farmers, due to low prices, woodticks, surplus production, wearing heavy underwear in summer, foreign competition, home brew, and other causes. But there is distress among the plumbers and steamfitters, too. I will guarantee to deliver their vote to any candidate who will insert the following in his platform, or to both candidates in case they both do:

1. A law making three nights of the week Saturday night.
2. All bathing beauty contests to be held in bathtubs hereafter.
3. Public bathing beaches to be prohibited, and other unfair competition. All bathing to be done in a tub.
4. All plumbers and steamfitters to be guaranteed life, liberty and 25%.
5. Compulsory hot and cold water in all hotels, garages, and the Great Lakes.
6. All municipal water and sewer systems to be taken up and relaid every year.
7. Possession of a pipe wrench by other than a plumber or steamfitter to be a misdemeanor.
8. A $500,000,000,000 flood control appropriation, the Mississippi to be piped to the Gulf.
9. To relieve traffic congestion, the following to be delivered through mains: milk, molasses, vinegar, and hard and soft coal.

In return, all plumbers and steamfitters should be compelled to use Nye tools, they work so much faster and easier and last so much longer than any other. They assure plumbing prosperity.

Yours for reform, in any form

HARRY G. NYE

Otherwise Known As

THE NYE TOOL & MACHINE WORKS

4120-30 Fullerton Avenue

Chicago, Ill.

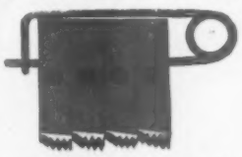
(Copyright, 1928, by Harry G. Nye. All rights reserved)

Nye Drop Forged Pipe Cutter

No. 1-A ⅛ to 1¼" .....$2.75 net
No. 2-A ¼ to 2" 3.30net
No. 3-A 1 to 3" ..... 5.50 net

Nye Saunders Pipe Cutter

No. 1 ⅛ to 1" .....$2.00 net
No. 2 1 to 2" .....3.00 net
No. 3 2 to 3" ..... 7.33 net
No. 4 2½ to 4. ..... 12.00 net
No. 5 4 to 6" ..... 18.67 net



NYE (Toledo Type) Chasers Fit Nos. 1, 1A and 2 NYE (Toledo Type) Stocks

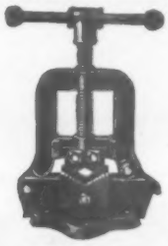
Each set is guaranteed in every particular. Will cut much easier than other similar dies.

No. 1, 1" to 1½" ..$ .75 per-set net
No. 1, 2" .....$1.25 per set net
No. 2, 2½" to 4" ..$3.60 per set net

NYE NO. 2
(Toledo Type)
Geared Threading Device Improved

Capacity 2½ in. to 4 in. inclusive. This tool has the same rugged construction as the No. 1 and No. 1A Nye Receding stocks. A ratchet handle and a spider hub threaded for 1-inch pipe is furnished as standard equipment.
Net price complete $50.00
West of Rocky Mountains .. 55.00

FREE TRIAL—ABSOLUTELY GUARANTEED



Nye Self-Locking Vise

No.	Pipe	Vise, Complete Net
00	⅛ to 2 "	$2.82
10	⅛ to 2½"	3.34
20	¼ to 3½"	5.00
30	⅛ to 4½"	7.33

Nye thin blade cutter wheel, made to fit all standard makes of pipe cutters, and guaranteed against breakage in use. Made both in smooth and knurled edge.

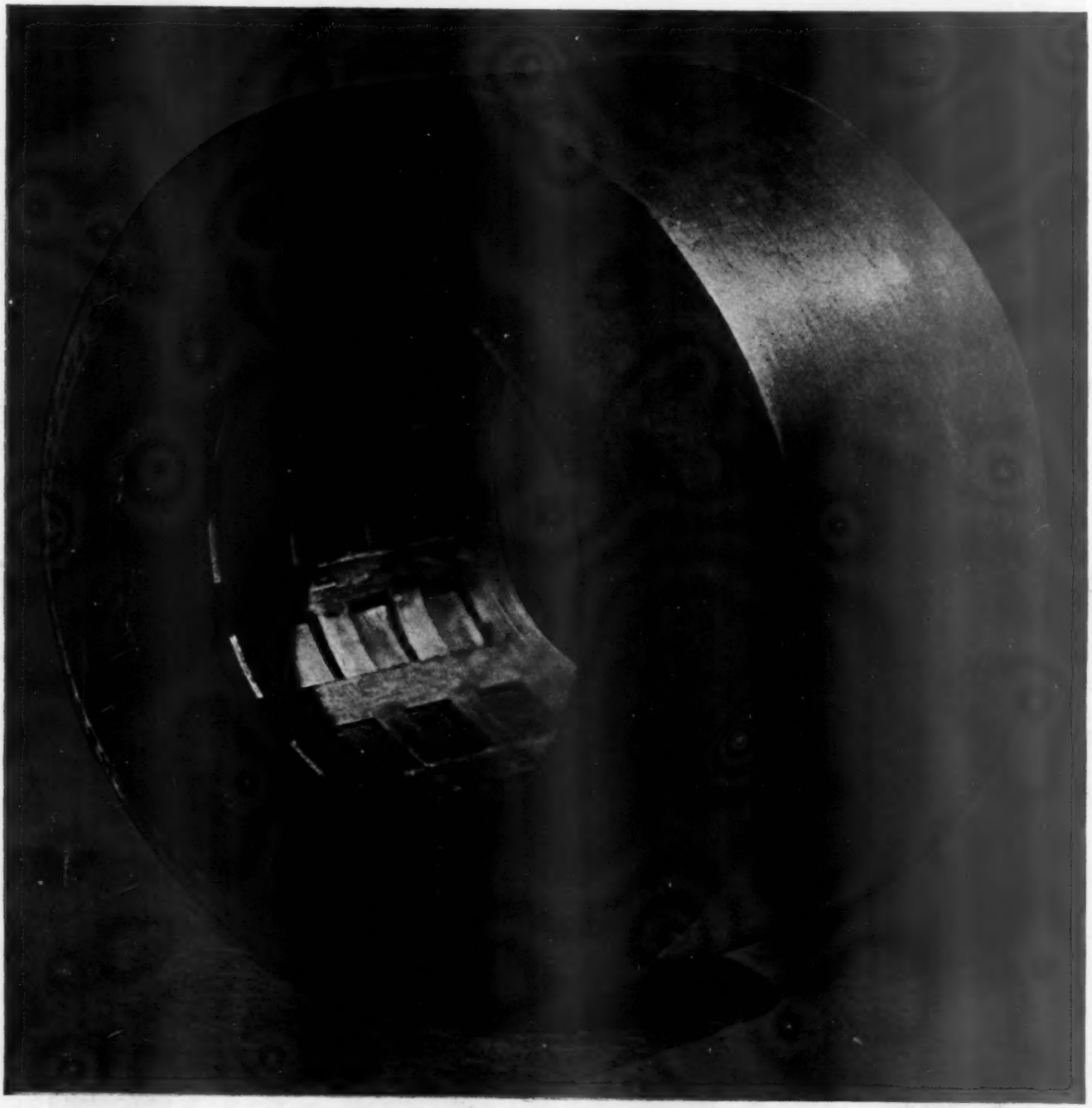
The No. 1A is the same as the No. 1, except that it is equipped with a ratchet for work where space is restricted.

No. 1A Nye Receding Pipe Threader, complete ...$12.00 net
West of Rocky Mountains $13.50

The rugged construction and few working parts account for the simplicity and durability of these Nye Receding models. They do the work easily and efficiently.

No. 1 Nye Receding Pipe Threader, complete ....$9.60 net
West of Rocky Mountains $10.80

The protectors that offer he



Fully Patented

Bettis Protectors - The

Say you saw it in The OIL WEEKLY

heretofore unheard of advantages!

Users Declare:

Less Wear on Brake

"Before installing Protectors it was almost impossible to hold pipe with brake. Our brake got so hot we couldn't stand close to it. With the installation of Bettis Protectors we can stop the pipe anywhere we want to and we estimate they are taking 10 tons off in weight, going in hole. We find that the pipe rotates much easier."

Collar Economy

"IN ONE WELL THE SAVING IN COLLARS ALONE WAS ENOUGH TO PAY FOR THE BETTIS PROTECTORS. BEFORE INSTALLING THE PROTECTORS WE WERE CUTTING OFF AND REPLACING COLLARS EVERY 3 TO 5 DAYS. AFTER PUTTING ON THE PROTECTORS WE NEVER CHANGED A COLLAR AND FINISHED THE WELL WITH SOME 90 DAYS DRILLING."

More Production

"At least 5 days' production has been saved on each well that we have drilled recently due to faster and easier drilling, by the aid of Bettis Protectors. We estimate that approximately 15,000 barrels per well in extra production have been obtained as we were drilling in off-set."

Outlast The Pipe

"We found in actual service that when Bettis Protectors were put on new pipe they out-wore the pipe and when the drill pipe was laid down the collars and tool joints calipered full size. The Protectors, while scarred up, still had ample diameter."

Tremendous Saving

"On one lease where we have from 13 to 16 rigs drilling constantly and have for the past 8 years, our cost of operation has been cut down at a rate of $150,000 to $200,000 per year and this does not take into consideration the loss of oil and wells that might have occurred due to collapsed casing had we not used Bettis Protectors."

Big Saving

"Your Protectors have been especially valuable, as we operate a wild-cat, hundreds of miles from the nearest supply house and our saving of time and expenses has been remarkable, due to the use of these Protectors. Our saving is so great that we would use them even if they wore out every 5 hours."

Less Load

"In one of our deepest wells at Ventura it required 4 points of electricity to drill with but after equipping the pipe line with Bettis Protectors it took only 2 points, therefore reducing our power bill 50%. The Protectors took off as much as 2 tons in weight coming out of hole and 8 tons going in, according to our recording indicator."

Preventing Breaks

"COLLAPSE OF STOVEPIPE CASING WAS ENTIRELY ELIMINATED BY OUR USE OF BETTIS PROTECTORS. WE FOUND THAT THE STOVEPIPE CASING DID NOT BREAK LOOSE FROM ITS SEAT AND FOLLOW DOWN THE HOLE AS WAS THE CASE BEFORE USING PROTECTORS WHEN DRILLING IN LARGE HOLES. CONSEQUENTLY MANY DAYS WERE SAVED IN GOING AFTER A NEW SEAT AND RECEMENTING."

Twist-offs Reduced

"Our experience has been that the twistoff record over a 6 months' period, with 15 rigs drilling, was cut more than half as compared with a 6 months' period prior to installation of Bettis Protectors."

Brake Bands Saved

"Before installing Protectors we were changing our brake bands every week. Since installation we have not changed a single one. The reason is that the Protectors form a float for the drill pipe, preventing pipe from following too fast and the strain is taken off of the brake bands."

Save Fuel

"On a deep test in Ventura before installing Bettis Protectors, it took one turn of the throttle to rotate the pipe when off bottom. After installing, the pipe rotated freely with the throttle barely cracked, saving about 50% fuel."

Straighter Hole

"On test with a machine for surveying wells we found that the wells were actually straighter than those drilled without Bettis Protectors. This was either because the Protectors acted as guides or because dri"ing was easier."

Saving Fuel

"Observation of one of our wells under test showed steam savings running as high as 35%. This is a big saving in fuel and amount of water to be pumped. In another well, by using Bettis Protectors, it was found unnecessary to install an additional boiler that was ordered before the Protectors were in use."

79 Companies have installed 64,310

Relieves Pipe Strain

"Our hole was so crooked that when the clutch was thrown out the pipe would make five or six revolutions backwards, showing the crooked screw effect on the drill pipe. After installation, the pipe rotated freely."

Save Labor

"You will be interested in learning that after standardizing on Bettis Anti-friction Rubbers we were able to release 2 trucks for other work and to lay off a full crew of machinists. This was due to the fact that we did not need to cut off collars and rethread the drill pipe."

Patterson-Ballagh Corp

Insurance Exchange Bldg., Los Angeles, Calif.

Bettis Sales Co.—Texas & Louisiana Distributors

617 Public Nat. Bank Bldg. Houston, Texas

genuine anti-friction Rubbers

Williams' "Falcon" Tongs with either Flat Link or Cable Chain — proof-tested and CERTIFIED—for ¼" to 12" pipe and fittings.

WILLIAMS' "Falcon" Tongs certainly has proven itself in the Oil Fields. This tool has stood the gaff and come back for more. But a "Falcon" is more than tough, sturdy and long-lived —it's the handiest piece of equipment in your kit, doing the work of two tools—a pipe wrench and a fittings wrench—equally well.

The double-ended reversible jaw—with the teeth right across the center—gives a real grip on any fitting, in the closest quarters. Try a "Falcon" Tongs today. It will be a part of your kit for life.

J. H. WILLIAMS & CO.
"The Wrench People"

New York BUFFALO Chicago

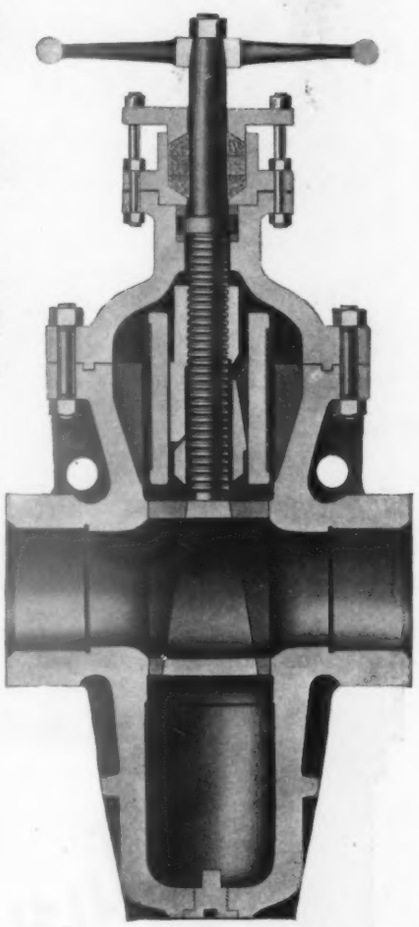
WILLIAMS
SUPERIOR DROP-FORGED TOOLS
"FALCON"

PIPE AND FITTINGS TONGS WITH PROOF-TESTED CHAIN

Say you saw it in The OIL WEEKLY

Tools can't hang, seats can't cut, gates can't block in the W-K-M Drilling Valve

The sealed flow-way, exclusive feature, positively protects all working parts against damage

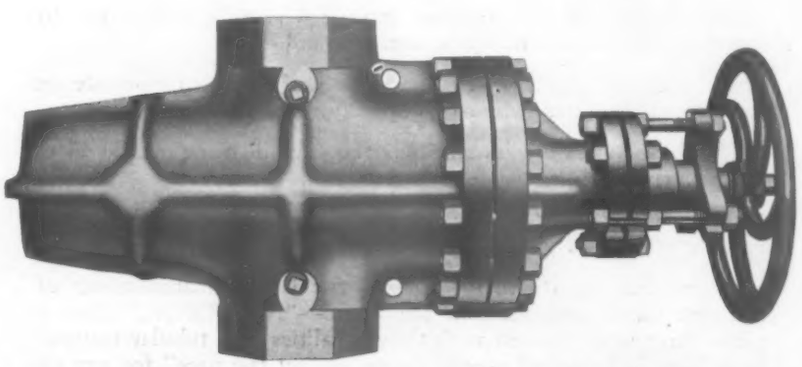


This is exactly how the inside of the W-K-M Drilling Gate would look, in the open position, in your hook-up. Valve cavity sealed off tightly. Valve body and bonnet sealed off tightly. Valve seats, the protection of which is vital if a tight shut-off is essential, sealed off and protected thoroughly. Try a hook-up on your next well!

These three features alone would justify your close investigation of the W-K-M—LAW Drilling Valve—if there were no others. But, to make an exceptionally good valve better, there are many other outstanding features. Exclusive features, that you will find in no other drilling valve made. Go over the following list of the most important of them:

1. Valve seats sealed against damage by tools passing through the fluid passage.
2. Valve seats sealed against abrasion or wear by sharp sand in oil or gas.
3. Valve cavity sealed against accumulation of foreign matter that might prevent gates from seating tightly.
4. Valve body and bonnet sealed against lodgement of solid matter which might interfere with free working of parts.
5. No projecting shoulders on which tools can hang up and cause fishing jobs.
6. Stuffing box may be repacked, if necessary, under full working pressure with valve either open or closed.
7. Balanced pickup holes for easy raising and stabbing.
8. Smooth, round flow-way has no side or top openings in which wire line can whip and kink.
9. Built to withstand the heaviest pressure — tested to 3,000 pound hydraulic pressure.

Write or use the coupon for full descriptive literature or a cheerfully furnished demonstration in your own office.



Side view of W-K-M Drilling Valve, showing balanced pickup holes which make raising and stabbing exceptionally easy on the crew. By-pass openings optional. Pressure gauge opening also optional.

W-K-M-Co., Inc., Houston, Tex.

Gentlemen:

( ) demonstrate model

( ) send full literature.

Name .....

.....

Address .....

.....

.....

O.W.

The W-K-M CO., Inc.

OIL FIELD-PIPE LINE & INDUSTRIAL EQUIPMENT

HOUSTON - TEXAS

In the down-ward search for Oil

"NATIONAL"
Usually Leads

There isn't an important pool of oil that hasn't been tapped by "NATIONAL" Pipe.

"NATIONAL" A.P.I. Seamless Interior Upset Drill Pipe usually sets the pace to each newly located oil sand.

"NATIONAL" A.P.I. and Diamond BX or B8 Casing usually set the pace in the completion of important wells.

"NATIONAL" A.P.I. Tubing sets the pace in bringing the oil to the surface.

"NATIONAL" A.P.I. Line Pipe sets the pace for volume and mileage of oil and gas transportation.

Uniform, Strong, Ductile—made by the largest manufacturer of wrought tubular products in the world—"NATIONAL" Pipe is particularly well invested with those qualities that tubular material must have in high and special degree to "set the pace" for any oil field service.

Remember! "NATIONAL" Seamless Couplings are available in all sizes and types for any oil country purpose.

NATIONAL TUBE COMPANY
Pittsburgh, Pennsylvania

Say you saw it in The OIL WEEKLY

Dependable Power

SEVEN YEARS AGO this company built a central generating station at Abilene, apparently much larger than was needed to supply the ELECTRIC demands of this territory—but today it requires THREE central generating stations aided by smaller auxiliary and stand-by stations in fifteen of the 105 communities to supply the high standards of service that we strive to maintain.

At San Angelo a year ago, this company built the first 8,500 horsepower unit of a central station —and on May 1st, a second unit identical in design, went into service. At Lake Pauline, just South of Quanah, the first 20,000 horsepower unit of a 60,000 station was put into operation Sept. 10, 1928.

This constant development . . . in advance of actual DEMAND . . . is our guarantee of "DEPENDABLE POWER" to all oil operators within the territory we serve.

WEST TEXAS UTILITIES COMPANY
In the Land of Opportunity

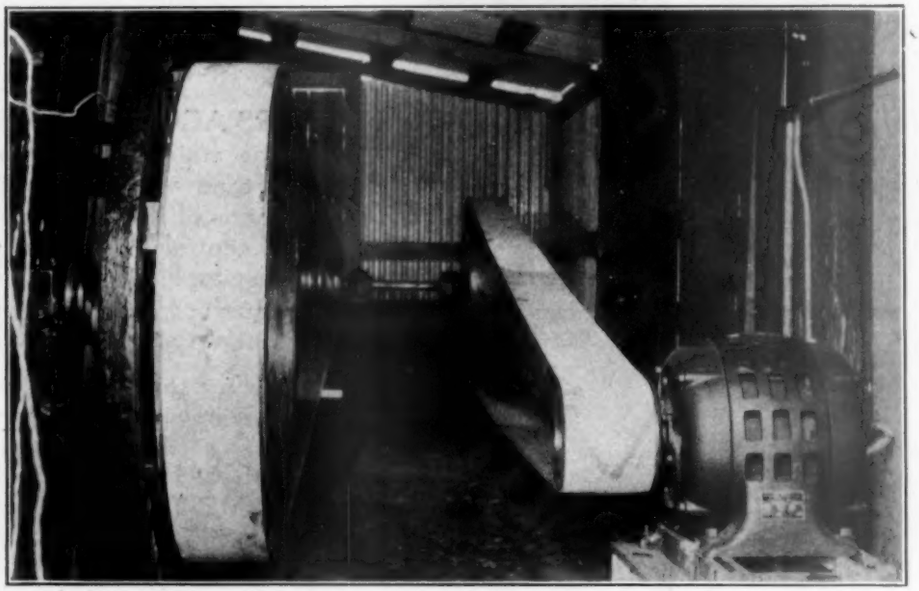
Nothing is apt to cost so much as a bearing that cost so little

You men who plan, build, use or pay for machines of any kind, remember this: It costs more to replace a poor bearing than to buy the best one that SKF ever produced. AND SKF ANTI-FRICTION BEARINGS ARE THE HIGHEST PRICED IN THE WORLD.

SKF Puts the Right Bearing in the Right Place

ANOTHER MANUFACTURER OF MACHINERY FOR THE OIL INDUSTRY THAT USES SKF BEARINGS

FAIRBANKS-MORSE & CO.



Drastic Reductions in Operating Costs Made Possible With SKF Bearings

ONE man looks after six wells . . . instead of two shifts of men for each well . . . that's some saving in operating costs! And here's the way it's done. On small wells, the connecting rod from the engine is uncoupled, and the flywheel pulley is driven by a Fairbanks-Morse motor through a countershaft.

To insure continuous operation with hardly any maintenance, SKF Ball Bearings are used on the countershaft and in the motor. For the brute jobs of the oil industry, SKF Bearings possess the long-life and ruggedness which make them the lowest in cost per bearing hour. Wear is a negligible factor, no adjustments are required and fresh lubricant need be supplied but three or four times a year.

SKF INDUSTRIES, INCORPORATED
40 East 34th Street, New York, N. Y.

2157

SKF

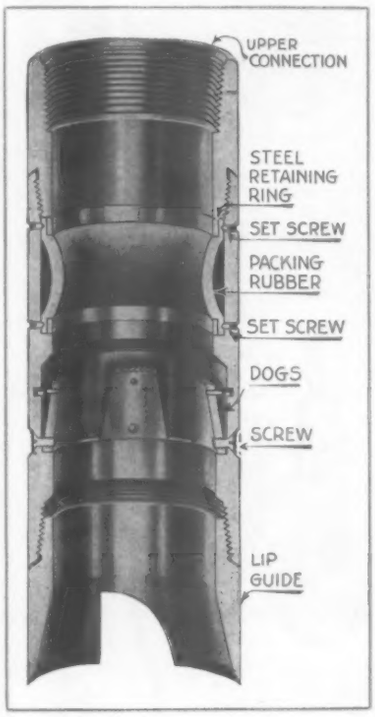
THE HIGHEST PRICED BEARINGS IN THE WORLD

* * * * * * * * *there is*

a Difference *in* Performance

* * of tools designed especially for a particular work and tools made for other conditions, being used to solve problems which were unforeseen when they were made.

The ROTARY METHOD of drilling brought with it fishing problems, distinctly its own. A circle usually flattens out before twisting off, therefore, the fish to be caught are often slivered and out-of-round.



The GRAY Overshot with

Positive RELEASABLE dogs - - -

Packer TESTED to hold 1500 lbs. pressure before shipment - - -

was exclusively designed to fill the need of ROTARY fishing.

It makes possible the CLEARANCE so necessary in telescoping out-of-round or slivered fish . . . . avoiding in most cases, the need of running on FISH with milling tool.

A fishing job is not usually bad until made so, and milling tools number with the "kill or cure" tools, often making slivers or shoving fish into the wall.

GRAY pioneered, as the first shop to specialize in the manufacture of **ROTARY** Fishing Tools.

We made the first practical releasable tools, both Spear and Overshot for use with **ROTARY** rigs.

Our efforts are expended toward designing tools that will do their work safely and easily and make super accomplishments unnecessary.

Complete information is available —all in one file—for your convenience.

WRITE FOR

your copy of this

"FISHING TOOL FILE"

GRAY

TOOL COMPANY

HOUSTON ~ TEXAS

D&B Better Pumping Equipment

A REPUTATION FOUNDED ON MORE THAN 20 years. OF SUPERIOR SERVICE

A FEW PRODUCTS FROM THE COMPLETE LINE OF D&B BETTER PUMPING EQUIPMENT

For more than twenty years D&B has made an intensive, scientific study of pumping oil; developing a wide variety of special appliances which comprehend every pumping operation and are unsurpassed in efficiency, economy and reliability. In every active oil field throughout the world D&B products are setting new standards of superior performance and low cost operation.

D&B DIVISION

EMSCO DERRICK & EQUIPMENT COMPANY
LOS ANGELES, CALIF., HOUSTON, TEXAS-DALLAS, TEXAS
U. S. A.
EXPORT OFFICE: 120 BROADWAY
NEW YORK CITY, N. Y.
U. S. A.

EMSCO STEEL EQUIPPED WELLS ARE SAFE

Operators Save Money in 4 ways by Using The

CLARK DRILLING ENGINE

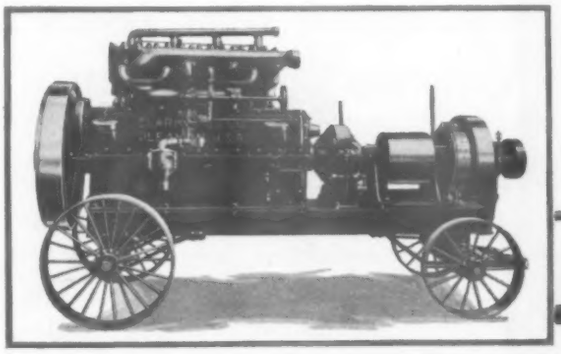
1 Operators enjoy radical *fuel savings* with the CLARK Drilling Engine, which uses only about 7000 feet of gas or 75 gallons of gasoline per 24 hours. It often operates on the small amount of gas available, where less efficient engines would necessitate hauling fuel.

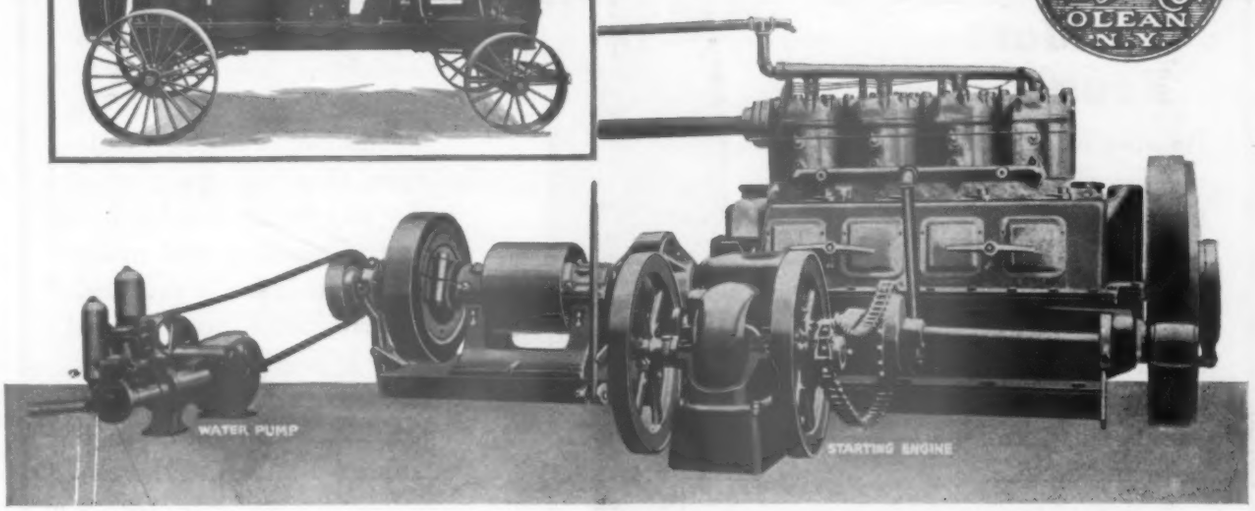
2 The CLARK Drilling Engine reduces labor cost and lost production by *saving drilling time.* It is always ready to start work after shut-downs. It maintains maximum power at maximum speed indefinitely when pulling tools or bailer, etc.

3 Since the CLARK Drilling Engine requires only a small amount of water for the cooling system, it eliminates the expense of furnishing large amounts of water and of cleaning scale.

4 This unit reduces operating costs in several ways. It is moved on its own truck at small expense, and requires no costly foundations. It is a slow speed engine, ruggedly built and thoroughly lubricated, therefore durable and economical to maintain.

Clark Bros. Company, Olean, N. Y. Branches and Warehouses at 125 W. First St., Tulsa; McCamey and Sweetwater, Texas, and Artesia, N. M. California Branch: Smith, Booth, Usher Company, 228 S. Central Ave., Los Angeles and 50 Fremont St., San Francisco.





CLARK

"If It's An ALCO Tool It's Modern"

4 Points Of Superiority
Of The
ALCO
Hard Formation Bit

FASTER

The Alco Hard Formation Bit is designed to drill fast and smooth. It is very successful in drilling in either hard or soft formation. When it breaks through a shell it keeps on drilling. In all tests it has proven to drill from 35% to 50% more hole than other bits in the same time.

Most Economical

Because of its greater speed and because it stays in the hole longer the Alco Hard Formation Bit makes hole at less cost per foot. Longer life and greater service is insured by our precision in manufacturing methods and the application of Borium and Stellite.

SAFER

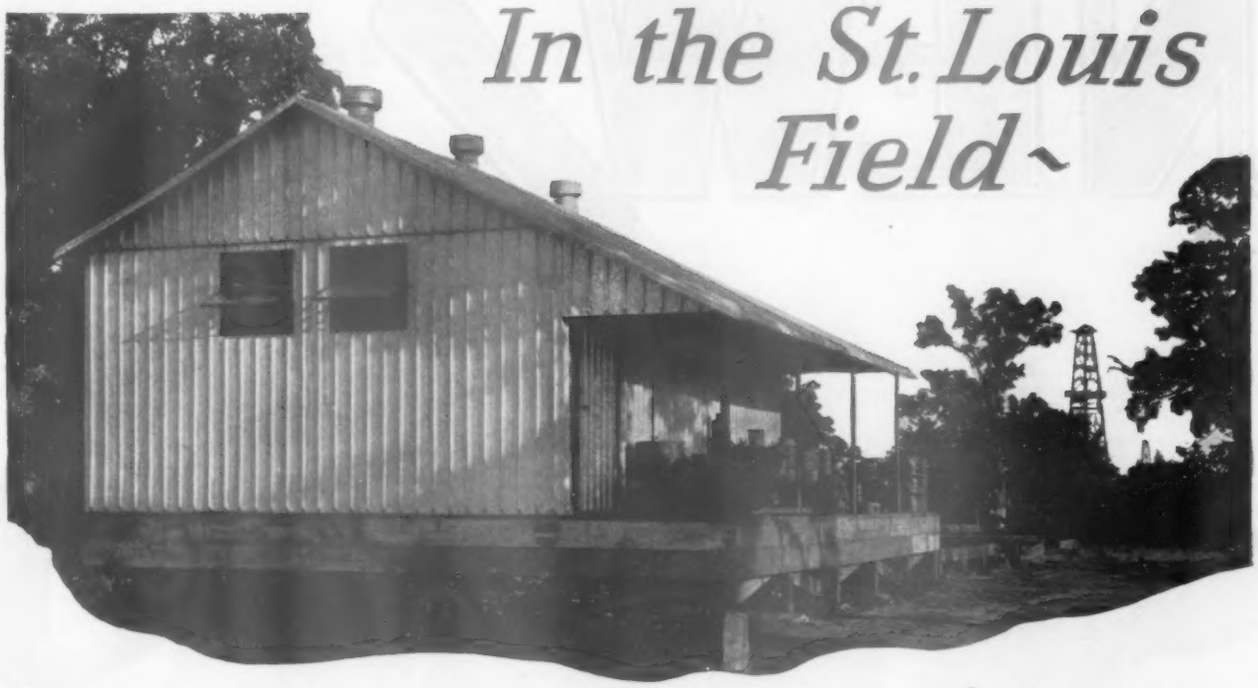
This remarkable bit is simple and efficient. There are no bolts or loose parts to lose in the hole and cause costly fishing jobs. There is nothing to go wrong and the bit stays out to gage.

Straighter Hole

This famous bit makes the straightest hole of any bit on the market today. The position of the pilot blades (out ahead of the rest of the bit) holds the bit in a central position and makes a straight hole. It practically eliminates rolling and most of the under-reaming. Instead of following the soft streaks it cuts right through, making a straighter hole.

ALCO OIL TOOL CO.
P. O. Box A - Compton, California

"If It's An ALCO Tool It's Modern"



Butler *Ready-Made* Steel Building

is used as a warehouse by the Independent Oil and Gas Company near Maud, Oklahoma

OTHER oil companies use Butler *Ready-Made* Steel Buildings not only as warehouses, but also as garages, power houses, engine houses, belt houses, warehouses, bunk houses, gasoline plants, etc.

From the oil fields of Wyoming to the oil fields of New Mexico, Butler Buildings are used extensively because they are adaptable and convenient for oil field use.

The sheets used in Butler Buildings are 24 gage tight coated galvanized steel with deeply drawn paneled corrugations. The sheets are bolted together and to the steel frame with galvanized bolts.

Prices are quoted f. o. b. plant or erected. Send for the illustrated catalog and see how these buildings are used in the oil field.

BUTLER MANUFACTURING COMPANY

KANSAS CITY, MO. — MINNEAPOLIS, MINN.

Butler Products include: READY-MADE Steel Buildings, Cans, Funnels, Buckets, Measuring Pumps, Truck Tanks, Underground Tanks, Storage Tanks, Bolted Tanks, Etc. Also pipe that can be used as conduit, double well casing or in other ways.

These reliable dealers handle Butler *Ready-Made* Steel Buildings:

M. & V. Tank Co., at Wichita Falls, Olney, Nocona, Cross Plains, Albany, Cisco, Isom, and Brownwood, Texas.

Drane-Humphrey Co., at San Angelo, Big Lake, Pyote and McCamey, Texas, and Roswell, New Mexico.

Drane Tank Co., at Tulsa, Holdenville, Seminole, Hallett and Shawnee, Oklahoma; Eldorado and Madison, Kansas.

M. A. Trimmer at Blackwell, Oklahoma, and Oxford, Kansas.

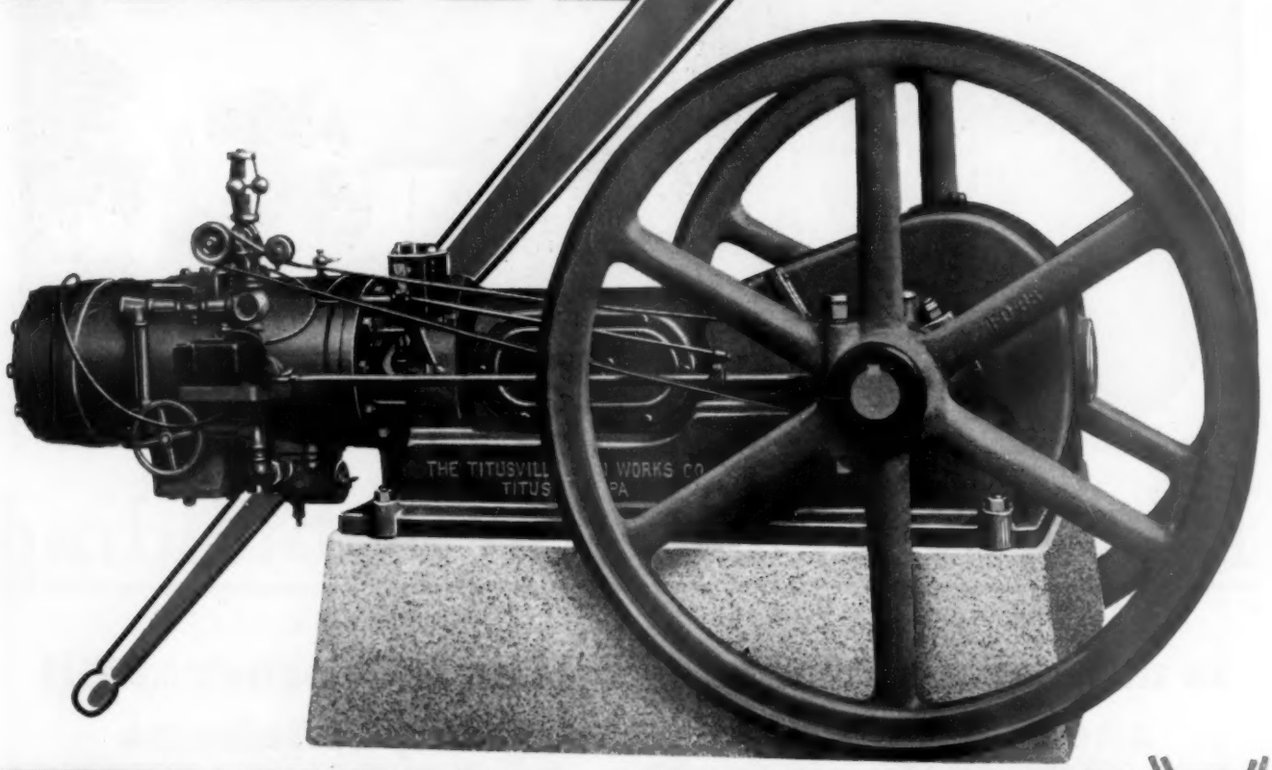
Keyes-Butler Tank Co., at Casper and Cody, Wyoming.

Thomas Moran at Oil City, Shreveport and Georgetown, Louisiana; Muskegon, Michigan.

Edward J. Baker & Co., 10 S. La Salle St., Chicago, Illinois.

Say you saw it in The OIL WEEKLY

NEW



TITUSVILLE TICO TYPE "B" 35 h.p. ENCLOSED GAS ENGINE

TICO Gas Engines have long been famous for reserve strength, flexibility, simplicity and accessibility to adjustments and parts. Now Titusville has developed a new member of the TICO series to meet the changing demands of swabbing, drilling and deep well pumping. The TICO Type "B" Enclosed 35 H.P. 2-Cycle Gas Engine will interest all operators who have use for power of this type.

The same rigid specifications as heretofore govern the materials and construction. All castings are semi-steel; forgings are open-hearth steel; special parts are made of phosphor bronze and up-to-date alloy metals where necessary; all parts machined are to close tolerances, finished to gauges; interchanging of parts is assured. The enclosed crank case is now built-in as part of the engine bed. In every part the TICO Type "B" Gas Engine is built to stand up under regular abuse of oil field service, to operate at excessive overloads and to afford lasting satisfaction and economy.

"If CONTINENTAL Sells It, There Is No Better"

THE CONTINENTAL SUPPLY COMPANY

General Offices: St. Louis
Export Office: 74 Trinity Court, New York
London Office: 316-317 Dashwood House, Old Broad Street. E. C. 2

THE CONTINENTAL SUPPLY COMPANY, Ltd.
411 Lancaster Building, Calgary, Alberta, Canada

CONTINENTAL

Say you saw it in The OIL WEEKLY

INDEX TO ADVERTISERS

Acme Fishing Tool Company .....
J. S. Abercrombie Company .....
Ajax Iron Works .....
Alco Oil Tool Company 18
Allis-Chalmers Manufacturing Company
Allsteel Products Manufacturing Co...
Alten's Foundry & Machine Works ...
Aluminum Company of America .....
American Association of Petroleum Geologists 82
American Cable Company .....
American Iron & Machine Works ..
American Manufacturing Company ...
American Schaeffer & Budenberg Corporation .....
American Tank Car Company .....
American Telephone & Telegraph Company .....
American Well Works 80
Andrews Steel Company 95
Arbon, Paul & Company .....
Ash Grove Lime & Portland Cement Company .....
Askenia-Werke, A. G. .....
Athey Truss Wheel Company .....
Axelson Machine Company .....
Ayer & Lord Tie Company 78

B. & A. Specialty Company .....
Baash-Ross Tool Company .....
Baker Casing Shoe Company .....
Baldwin Chain Company .....
Barber-Greene Company .....
William S. Barnickel & Company 4
Bartlett-Hayward Company .....
Bartlesville Supply Company 89
Beebe Brothers .....
Bessemer Gas Engine Company .....
Ben Milam Hotel .....
Bethlehem Steel Company .....
Boykin Machinery & Supply Company 78
Braden Steel Corporation .....
Bridgeport Machine Company .....
Broderick & Bascom Rope Company .
Buckeye Traction Ditcher Company ...
Buda Company .....
Buffalo Bolt Company .....
Burns Tool Company .....
Butler Manufacturing Company 19
A. M. Byers Company .....
Byron Jackson Pump Company 6

Cameron Iron Works .....Second Cover
Phillip Carey Company .....
R. S. Carter 90
Central National Bank & Trust Co. of Tulsa .....
Chain Belt Company .....
Chicago Bridge & Iron Works .....
Chicago Pneumatic Tool Company ....
Chisholm-Moore Manufacturing Co. ..
Clark Brothers Company 17
Climax Engineering Company .....
Colona Manufacturing Company .....
Columbia Nut & Bolt Company .....
Columbian Steel Tank Company .....
Continental Supply Company 20
Cook Pain & Varnish Company .....
Fred E. Cooper .....
Crescent Belt Fastener Company .....
Crowell, F. M., Company .....
Cyclone Fence Company .....

D. & B. Pump & Supply Company ... 16
Darling Valve & Manufacturing Co... 73
E. M. Dart Manufacturing Company.. 82
Diamond Drill Carbon Company 86
Drane-Humphrey Company, Inc. ....

Economy Pump & Oil Tool Company .
E. H. Edwards Manufacturing Co. ..
Electric Controller Manufacturing Co. . 61
Elliott Core Drilling Company .....
Emsco Derrick & Equipment Company
Exchange National Bank of Tulsa ....

Fenwick-Reddaway Manufacturing Co.
First National Bank, Tulsa .....
Fort Worth Laboratories 90
Fort Worth Well Machine & Supply Company .....
Franklin Valveless Engine Company.. 67
Frick-Reid Supply Corporation 81

Gardner-Denver Company .....
Gaso Pump & Burner Manufacturing Company 3
General Electric Company .....
Getty, Fred I. .....
B. F. Goodrich Rubber Company ....
H. P. Gott Manufacturing Company..
Gray Tool Company 15
Guiberson Corporation 47
Gulf Carribean Steamship Company .. 49
Gulf Coast Engineering Company ....
Gulf Publishing Company 75
Gulf Refining Company 98
Gulf States Utilities Company .....

Halliburton Oil Well Cementing Company .....5 and 88
Erle P. Halliburton Company .....
Hardway & Cathey 90
Haynes Stelite Company .....
Harrisburg Pipe & Pipe Bending Company .....Third Cover
Harrisburg Pipe & Pipe Bending Company of Texas .....
Hart Brothers Machine Company ....
Hazard Wire Rope Company .....
Heppenstall Forge & Knife Company
Hercules Motors Corporation .....
Hercules Supply Company .....
Hercules Tool Company .....
Heydrick Mapping Company 90
Hill, Hubbell & Company .....
Hinderliter Tool Company .....
Hirsch, Brown & Susman 90
Hotel Benjamin Franklin 86
Hopkins, Edwin B. .....
Howell Valve Works .....
Charles N. Hough Manufacturing Co.
Houston Natural Gas Company .....
Houston Engineers .....
Houston Ready-Cut House Company..
Hughes Tool Company.....Fourth Cover
Humble Oil & Refining Company ....
Hyatt Roller Bearing Company .....

Independent-Eastern Torpedo Company
Independent Oil & Gas Company ....
International Cement Corporation 85
International Derrick & Equipment Company 22
International Supply Company .....

Jarecki Manufacturing Company .....
Jensen Brothers Manufacturing Co... 76
S. M. Jones Company 76

Kennedye Plumb Corporation 96
Kerotest Manufacturing Company ...
Keystone Pipe & Supply Company 88

Larkin & Company .....
Layne & Bowler Company .....
LeBus Rotary Tool Works .....
Lincoln Electric Company 87
Linde Air Products Company .....
Link-Belt Company .....
Lone Star Gas Company .....
Lucey Products Corporation .....
Ludlow Valve Manufacturing Company

McAlpin Hotel 94
McCollum Exploration Company 90
J. H. McEvoy & Company .....
Maintenance Engineering Corporation 82
Magnolia Petroleum Company .....
Maloney Tank Manufacturing Co. 52
Manzel Brothers Company .....
Martin-Loomis Corporation 79
Martin Wagon Company .....
Phillip Maverick 90
Mead Morrison Company 91
Metric Metal Works 71
Miller Combination Bailer & Pump Company .....
Robert J. Miller Company .....
Mission Sales Company .....
M. K. T. Railway .....
Lee C. Moore & Company 58-59
Morrissey Torpedo Company .....
Murray Tool & Supply Company ....

National Petroleum Engineering Co....
National Supply Companies 83
National Transit Pump & Machine Company .....
National Tube Company 12
Norris Brothers .....
Norvell-Wilder Hardware Company ..
R. D. Nuttall Company .....
Nye Tool & Machine Works 7

O'Brien Steel Construction Company . 97
Oil City Iron Works .....
O. C. S. Manufacturing Company ...
Oil Well Supply Company 24
Oklahoma Contracting Company .....
Oklahoma Gas & Electric Company ..
Osage Indian Agency .....
Oxweld Acetylene Company .....

Parkersburg Rig & Reel Company 63
Patterson-Ballagh Corporation 8-9
Pattin Brothers Company .....
Peden Iron & Steel Company 84
Petroleum Engineering University 88
Petroleum Rectifying Company .....
Petty Geophysical Engineering Co.... 90
Pittsburgh Equitable Meter Company..
Pittsburgh Steel Products Company ...
Portable Rig Company .....
Pratt & Whitney Company .....
Price, W. A. .....
Prest-O-Lite Company .....
Reading Iron Company .....
Reed Roller Bit Company .....
Regan Forge & Engineering Company
Joseph Reid Gas Engine Company .. 57
Roeser & Pendleton, Inc. .....
Republic Supply Company 77
Republic Iron & Steel Company ....
Reschke Machine Works .....
Rhode Island Fittings Company .....
Rollway Bearing Company .....

Safety Pulling Machine Company .....
Schroeder Products & Mfg. Co. .....
Second National Bank .....
J. E. Shaffer Company .....
Shaffer Specialty Company .....
Shaffer Tool Works .....
Sheffield Steel Corporation .....
Sheldon Machinery Corporation .....
Sinclair Refining Company 55
Skelly Oil Company .....
S-K-F Industries 14
A. O. Smith Corporation .....
Smith Separator Company 65
H. C. Smith Manufacturing Company..
Howard Smith Company .....
South Chester Tube Company .....
Southern Blue Print & Supply Co..... 90
Southern Engine & Pump Company.. 86
Southern Mill & Mfg. Company .....
Southern Pacific Lines .....
Spang & Company .....
Spang Chalfant & Company 69
Standard Steel Works .....
Stanley Belting Corporation 97
Star Drilling Machine Company .....
Jesse R. Stone 90
Sullivan Company .....
Sullivan Machinery Company 84
Superior Oil Corporation .....

Templeton, Kenley & Company .....
Texas Creosoting Company .....
Texas Cyclone Fence Company .....
Texas-New Mexico Power Company ..
The Texas Company .....
Texas Power & Light Company .....
Thrift Corporation .....
Timken Roller Bearing Company ....
Texas Sand & Gravel Company 90
Titusville Iron Works .....
Edgar Tobin Aerial Surveys 80
Traction Machine Company .....
Trimont Manufacturing Company ....
Trumble Gas Trap Company .....
Twin Disc Clutch Company 91
Tyler Tube & Pipe Company 95

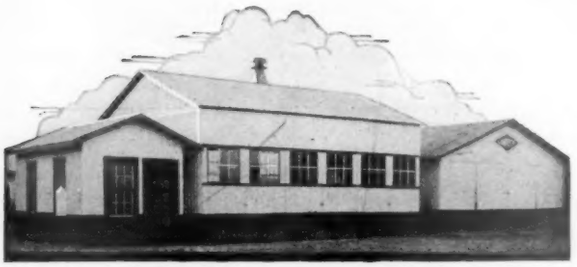
Union Manufacturing Company 97
Union Wire Rope Company .....
United Iron Works .....
United States Torpedo Company .....

The Vez Company .....
Vulan Steel Tank Corporation .....

Wabash Railway .....
Warwick Hotel .....
Ward Chemical Company .....
Waukesha Motor Company 92
C. W. Webster 90
John F. Weinzierl 90
Wertzberger Derrick Company .....
Westinghouse Electric & Manufacturing Company .....
Westcott & Greis .....
Western Metal Manufacturing Co. ..
Wichita Falls Motor Company .....
West Texas Utilities Company 13
Wickwire-Spencer Steel Company 97
Wico Electric Company .....
Wieman-Kammerer-Wright Company . 51
J. H. Williams & Company 10
Williamsport Wire Rope Company ...
Wilson Oil Tools Corp. .....First Cover
Wilson-Snyder Manufacturing Company
W-K-M Company 11
T. T. Word Supply Company .....

Yale & Towne Manufacturing Co. .. 95

IDECO STANDARD STEEL BUILDINGS



BACK of the surprising simplicity of IDECO Standard Steel Buildings are fundamental factors of engineering design which have a direct bearing upon durability, ease of erection, and low maintenance costs.

Rust and corrosion add thousands of dollars annually to the maintenance costs of industrial material. The durability and low upkeep costs of IDECO buildings come from the use of standardized parts and the Hot Dip Galvanized steel frames, an exclusive IDECO feature.

IDECO Standardized Steel Buildings are adaptable to almost every industrial use.

INTERNATIONAL STANDARD IDECO BUILDINGS (GALVANIZED)

The International Derrick and Equipment Company

Columbus, Ohio Torrance, Calif.

Branches and Stocks—Detroit, Mich.; Dallas, Houston, Mexia, Wichita Falls, Pyote, Odessa, Borger, Corsicana, Pampa, Panhandle, Texas; Shreveport, Oil City, La.; Smackover, Ark.; Eldorado, Kan.; Tulsa, Tonkawa, Drumright, Okemah, Seminole, Allen, Sasakwa, Okla.; Torrance, Los Angeles, Taft, Calif.

Export Representation: 74 Trinity Place, New York City, Columbus, Ohio, Houston, Texas, Los Angeles, Calif.

NOV -5 1928

©CIB 15286

Volume 51, No. 7 *November 2, 1928*

The OIL WEEKLY

Edited Weekly at Houston, Texas SPENCER W. ROBINSON, *Editor*

TABLE OF CONTENTS

Features

IDEA OF BETTER CRUDE PRICES PENDING SPREADING FROM OKLAHOMA 25
By Kent Ridley
SINCLAIR STOCK RISE BASIS MERGER RUMORS 27
TULSA EXPOSITION SURPASSES ALL PREVIOUS EFFORTS 28
By Grady Triplett
"PIONEER OF OIL INDUSTRY" FORMED AT TULSA; JAMES AMM HONORED 28
OPERATING DIVISIONS TAKE ADVANTAGE OF OIL EXPOSITION 29
By W. G. Skelly
VISITORS FROM MANY NATIONS ATTEND TULSA EXPOSITION 30
DAN J. MORAN BECOMES PRESIDENT MARLAND OIL COMPANY 31
DEMAND FOR CONSERVATION MAKES SHERMAN LAW OBSOLETE 32
SHARP DECLINE MAKES OKLAHOMA SITUATION LOOK BETTER 33
By Wallace Davis
THREE WILDCATS IN YATES AREA SHOW POSSIBILITIES 35
By H. H. King
RAILROAD COMMISSION HAS HENSHAW-SETTLES UNDER ADVISEMENT 36
MOORE AND GRAY COUNTIES BOOST PANHANDLE PRODUCTION 36
BURNING SANTA FE SPRINGS WELL MAKING 4300 BARRELS 37
By Brad Mills
MUCH SOUGHT OIL ZONE FOUND IN TWO WELLS AT ELWOOD FIELD 38
TWO CHAMPAGNOLLE COMPLETIONS ON NORTHWEST AND NORTHEAST 40
ROTARY DRILLING PROBLEMS 41
By R. S. Cartwright

Departments

UNITED STATES PRODUCTION—A. P. I. FIGURES 60
COMPLETIONS FOR THE PAST WEEK IN ALL U. S. FIELDS 62
PERMITS GRANTED FOR NEW WELLS 68
WILDCAT DRILLING REPORTS FROM ALL IMPORTANT AREAS 72
SQUEAKS FROM THE BULL WHEEL 96
CRUDE OIL PRICE QUOTATIONS 54
WEST TEXAS PRODUCTION DETAILS 53
PERSONAL MENTION 40
NEWS OF THE NATURAL GAS INDUSTRY 48
NEW EQUIPMENT, CATALOGS, BOOKS 93

Published Weekly By GULF PUBLISHING COMPANY
Copyrighted, 1928

R. L. DUDLEY, *President* — A. L. BURNS, *General Manager* — SPENCER W. ROBINSON, *Editorial Director* — J. KENT RIDLEY, *Managing Editor*

Office of Publication: 3301 Buffalo Drive, Houston, Texas

NEW YORK: Room 408-409, 250 Park Avenue, R. P. Swinsky, Manager. PITTSBURGH: 510 Park Bldg., W. W. Pigue, Manager. CHICAGO: Room 520, 624 S. Michigan Ave., O. R. Waller, Manager. LOS ANGELES: 416-417, Haas Bldg., Wm. V. Gross, Manager. TULSA: 215-218 Atco Bldg., J. F. Carter, Jr., Manager. FORT WORTH: 203 W. T. Waggoner Bldg., H. H. King, Manager. Issued Friday of each week. Single copies 10 cents. Subscription price, Domestic $1.00 a year, Foreign $2.00 a year. Subscription restricted to those engaged in the producing and pipe line branches of the oil business or the manufacture and distribution of oil field supplies. Advertising rates on application.

A SAFE DELIVERY
... *over an Unsafe Road!*

The rain quickly became a deluge, and the river grew to a torrent that rose over the roadbed.

Travel was treacherous.

Yet the team splashed ahead... through the darkness ... knowing the danger of a wrong turn ... but steadily on, until the "Oilwell" equipment was delivered safely. And soon the best producer was running again.

OIL WELL SUPPLY COMPANY

NEW YORK—LOS ANGELES—PITTSBURGH, U.S.A.—SAN FRANCISCO—TAMPICO—LONDON

WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

Say you saw it in The OIL WEEKLY

Idea of Better Crude Prices Pending Spreading From Oklahoma

Failure of gasoline demand to fall off enough to embarass refiners has effect of bolstering the belief that better crude market is imminent

By KENT RIDLEY

FAILURE of the market generally to do the usual for this season of the year points strongly to the possibility that the winter slump of other years may be a thing of the past.

Oil producers whose prosperity is tied up with consumption of gasoline can get much encouragement for optimism from consideration of statistics on closed automobiles and improved roads which have served to flatten out the valley of gasoline consumption to a marked degree. While it has not been definitely so asserted, it begins to appear that the coming of winter may mean only a better demand for fuel oil and no material loss in gasoline demand as compared with summer. At least something is working to give the oil market an optimistic trend at this time, although in all minds there is a spectre of the "seasonal slump"—but now more anticipated than apparent.

North Texas

Tapering off of the gasoline demand as the winter season grips the country has not caused any appreciable drop in refiners quotations in the Mid-Continent district, owing to the efforts of plant owners in curbing their crude charges to stills in proportion to current consumption.

Absence of burdensome stocks of gasoline at the plants at the beginning of winter also proved to be a major factor in preventing a sharp break in prices on this commodity, while the accumulation in recent weeks has been discounted ahead in market circles.

The tendency among Mid-Continent plant owners to restrict crude runs is being adopted by the skimming plants in West Texas, thereby reducing the volume of low priced fuel oil thrown on the market. However the bulk of the plants in West Texas have a limit on cutting their operations, as they are buying crude on contracts which are subject to cancellation upon failure to take the minimum amount of oil specified.

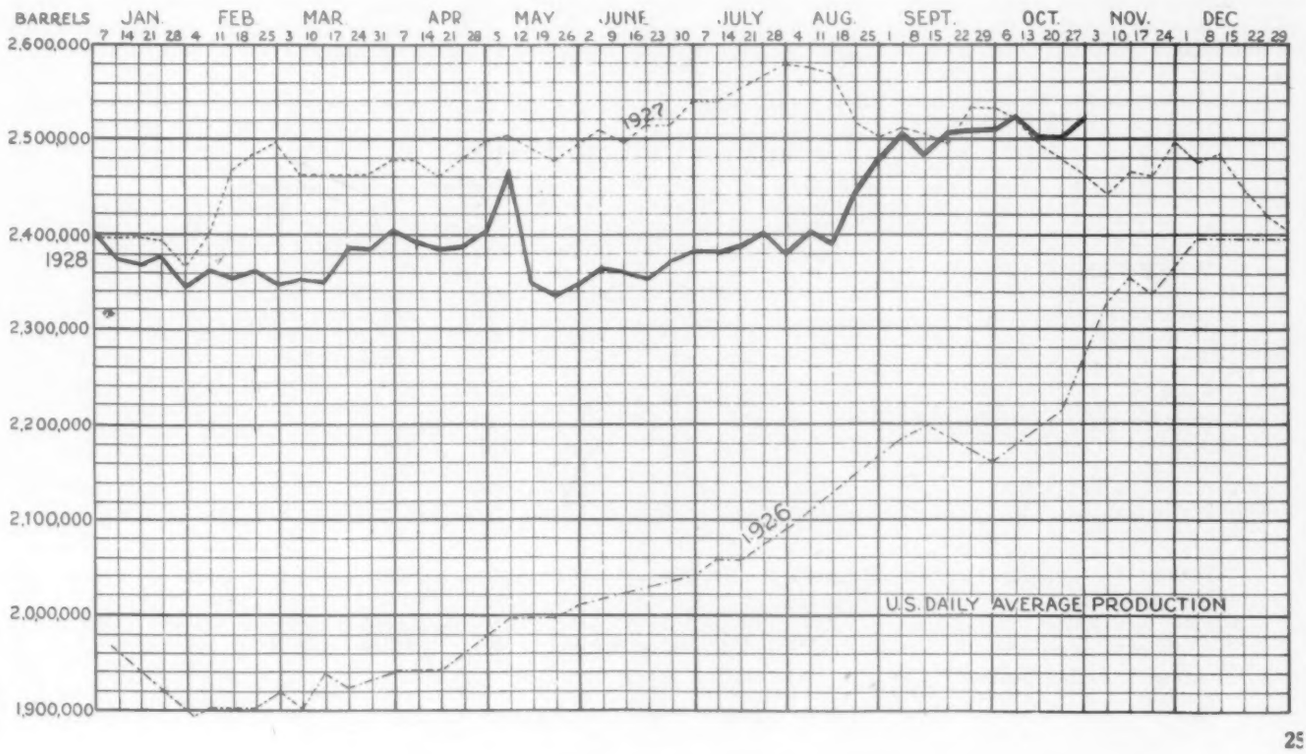
North Texas refiners are receiving nine cents, and a fraction higher on some sales, for their U. S. Motor gasoline, while fuel oil has shown signs of improvement with average grade in the Wichita Falls district firm $1.55 per barrel.

Producers of high gravity sweet oils in the North and Central Texas districts are beginning to share in the optimistic viewpoint that has prevailed in Oklahoma and Kansas in recent weeks as to the general outlook for the crude market. Spot crude in the Wichita Falls district is less plentiful than it has been in several months and the principal source of new production has been affected by the scarcity of drilling water. Wilbarger County has been adding more new production than all other counties combined in the North Texas district, and field work is almost at a standstill because of the water shortage, which will not be relieved until the section is given a heavy rainfall.

Invasion of the Atlantic Pipe Line Company into the Coleman County high gravity oil area in Central West Texas with a gathering line is now in prospect, and two or more large tanks are to be erected in the county to accumulate the oil and slug it through the 10-inch trunk line now being built.

This company and associates recently scored a six hundred barrel producer in

UNITED STATES CRUDE PRODUCTION TREND



Coleman County, and more tests are being started on the same tract, while an effort will be made by Atlantic to get outside connections also.

Humble Pipe Line Company has started operating its eight-inch line, which was recently built from Kemper station to the Howard Glasscock County area, and plans are to obtain about twelve thousand barrels daily if the oil is available. The Shell Pipe Line Company is pushing the preliminary work on the trunk line that is to be built from McCamey terminals, West Texas district to a point near Houston and in all probabilities this line will be routed via Caldwell County to participate in any flush production that may be developed from the Edwards lime in the Bruner pool.

With the beginning of the last week in October the rumors of pending price increases in Oklahoma gained more tone, though production played no part in contributing to the logic on which the rumors were partly based. From sources such as the well posted official come estimates of a perking up of the prices within a limit of, say, 60 days. The rumors are strong enough to gain better prices through public opinion alone, it would seem.

It cannot soundly be stated that any great reserve of light oil in the Mid-Continent is withholding the expected raise. Oklahoma is shooting almost her last wad by starting development in the Mission and Maud areas of Seminole and Pottawatomie County. No doubt the crude buyers see a marked decline by mid-winter inasmuch as Little River and St. Louis fields are being drained to the maximum right now, including the most efficient work on artificial recovery together with the rapid drilling of the areas. At the present rate of development there is less than 90 days of drilling locations left in the two areas, barring substantial extensions. Mission and Maud are questionable for big production—provided they do turn out to be major production spots, we have until February 15 to get the brunt of the effect from present development there.

Oklahoma is now producing around 740,000 barrels daily. By February 1 there is a strong chance of natural decline removing 40,000 barrels of this. By that time refiners will be oiling the old plants in preparation for maximum capacity runs for another eight-month stretch. They will want more oil than the surrounding territory is now producing, considering the increase in consumption to invariably come over the demand of 1928. Oklahoma isn't going to be dealing out Seminole's class of crude reserves promisciously next year as it has in the past two years unless the operators do some nigger-luck wildcatting in double-quick order.

Natural gasoline took the limelight last week in changes in Oklahoma. The AA grade rose to 10 cents and was going unusually strong at that figure. BB was selling at 9¾ cents, and a posting could not be found very easily on the grade "C" because it was so scarce. Heavy consumption on the naturals is being evidenced through its strong demand right now for blending purposes.

U. S. Motor gasoline had a low last week of 9⅛ cents, showing practically no change over the last half of October. Fine weather conditions were enabling refiners to keep their sales up to a good stride.

California

A still further weakness in the heavy oil market was one of the outstanding developments of the week in California. By bunching all grades of Kern River crude between 14 and 14.9 gravity and placing a flat price of 50 cents per barrel, Standard Oil Company has discouraged both the development of certain fields and the releasing of a large shut-in production. The former price of this grade of oil was 75 cents, the cut being one of the sharpest felt for some time. Much of the shut-in production was actually released last week, but the radical reduction caused the operators to again close their wells. Although the slash in price affected only one district, other areas showed a heaviness. It was taken as a mild warning that the operators must stand together in the conservation program outlined last spring and concurred in by all of the larger operators.

The continued slump in the Long Beach field and small declines in the smaller fields has been reflected in a smaller state production. This is a highly satisfactory condition and certainly would lead to a healthier state within a few months, barring expected developments in the Santa Fe Springs field. The cloud hovering over the main structure of the market is Santa Fe Springs, however, and the failure to move forward faster is caused by the thought that production probably will pass 750,000 barrels soon after the first of the year. Spot crude is easily disposed of in the Los Angeles basin, but the absence of premiums is conspicuous.

The launching of a campaign to curtail oil production as well as gas production in the Santa Fe Springs field lends a slightly encouraging aspect to the dread of another flood of crude. The nature of the leases makes it difficult to reach an agreement of conservation, however. The possibility that the State may take a hand in the situation has had a good effect.

There has been no change in gasoline quotations. Export gasoline is being quoted at about 8¼ cents, with out of state shipments holding at a slightly higher level. Local consumption is running about five per cent. higher than last year. The fuel oil market is still weak, with a tendency to soften on unfavorable developments in the heavy crude market.

Ponca City, Okla.—The report for Marland Oil Company and subsidiary companies for the last three quarters, ending September 30, showed a loss in net income of $1,348,784, which, with a loss in surplus of $1,585,453, shows a total deficit of $2,934,237.

Details on Critical Fields

	Oil Wells Completed	Total Initial Production	Initial Per Well	Number Producing Wells	Daily Production Barrels	Daily Prod. Per Well	Rigs Up	Wells Drilling
WEST TEXAS								
Hendrick	395	2,231,145	5,648	407	155,670	*382	34	92
Church & Fields	187	203,045	1,086	186	29,920	161	..	2
Gulf-McElroy	66	55,130	835	66	13,710	208	..	2
Yates	275	1,800,390	6,547	272	71,825	*264	6	11
Totals	923	4,289,710	4,648	931	271,125	291	40	107
TEXAS PANHANDLE—								
Hutchinson County	1,123	547,815	488	995	30,740	31	3	23
Gray County	280	123,555	441	269	28,675	107	8	54
Carson County	181	59,370	328	158	6,080	38	1	11
Wheeler County	44	14,645	333	35	850	24	5	10
Moore County	4	2,420	605	2	2,130	1,065	2	7
Totals	1,632	747,805	458	1,459	68,475	47	19	105
OKLAHOMA—								
Greater Seminole	1,537	2,051,112	1,338	1,256	311,756	248	34	104
St. Louis	200	2,252,862	1,264	207	130,039	628	15	112

*Production partially pinched.

Sinclair Stock Rise Basis Merger Rumors

Standard Oil Company of Indiana most persistently spoken of as possible absorbing company; Prairie stock also trending upward

TULSA.—Coincident with a rise in its value on the New York Stock Exchange, rumors are going the rounds of petroleum circles to the effect that the Sinclair Consolidated Oil Corporation is to be merged with some other of the larger oil companies.

The Prairie Oil and Gas Company and the Standard Oil Company of Indiana are the concerns most frequently mentioned as slated to take over the Sinclair Company.

So far the matter is one of the financial circles, since no official of either of the companies has uttered any word to indicate that a merger is even under consideration.

At Independence, Kansas, Tuesday, Dana J. Kelsey, dispensed with the matter by saying that he would be glad to have any information that could be given. He had none himself, other than what has been printed in financial circles and what has been going over financial wires between New York and Tulsa.

Neither W. S. Fitzpatrick, chairman of the board, nor Nelson K. Moody, president of the Prairie Oil & Gas Company was in Independence.

Rumors concerning the Sinclair Company are not new. They have had heated revival since the sale of a substantial block of Sinclair stock to Arthur Cutten of Chicago. His purchase of one million three hundred thousand shares of treasury stock was followed by his election to the board of directors of the Sinclair Company.

The Standard Oil Company of Indiana is drawing consistent mention in the Sinclair rumors because of the connection already existing between the two companies, as is the Sinclair Crude Oil Purchasing Company. The Prairie Company is being placed in the rumor class largely because of its pipe line system, which for considerable distance north from Oklahoma is matched by the Sinclair line.

Recently the Sinclair company announced construction of further pipe line facilities from Oklahoma to Chicago to serve both Sinclair and Standard of Indiana refineries in the Chicago area. This has been taken as certain to result in Prairie losing at least part of its daily deliveries to the Standard plant at Whiting, Indiana.

While the Sinclair stock has been moving upward in value, Prairie stock also has been moving upward sharply, several other stocks also have been advancing, leaving it possible that the Sinclair and Prairie movements are but part of a general upward swing in the oil classification.

While nothing definite has been announced in regard to any merger involving the Sinclair company, it is certain that many purchasers of stock, and some of them of much experience, have bought Sinclair in the past week under the conviction that some sort of merger will be consummated.

Several months back the Sinclair and Marland companies were mentioned as slated for a merger. This seems to have been removed from possibility with the reorganization of the Marland Oil Company at the meeting of the board of directors in New York, October 29. The resignation of E. W. Marland was made known then and the election of Daniel J. Moran to that place was announced. Moran, executive vice president in charge of production for The Texas Company, assumes his new duties November 1, William H. McFadden, vice president of the Marland Company, also resigned.

Mr. Marland will remain a director of the Marland Oil Company and also will be a member of the executive committee. In his announcement he said he was leaving the company he founded because of his inability to devote sufficient time to the duties of the office. A report from Ponca City Tuesday was that Marland would form another oil company to operate in Oklahoma.

The resignation of Mr. Marland was not unexpected. The company went through a serious financial loss in 1927. Early this year many of the executives resigned and the company was reorganized, while its operations were curtailed, especially in Texas.

J. P. Morgan & Company has held a substantial block of Marland stock for several years. Whether the Morgan firm was behind the present change in officials is not known here.

Since the new Marland president comes from The Texas Company, there is the liklihood that the Marland properties shortly will pass under The Texas Company banner.

Dan J. Moran Chosen President of Marland Oil Company

New York.—E. W. Marland on October 29, resigned as president of the Marland Oil Company, presenting his resignation at a meeting of the board of directors here; and he will be succeeded, effective November 1, by Daniel J. Moran, who has resigned as vice-president of the Texas Corporation to accept the position.

Although he has retired as active head of the company, Mr. Marland will remain a member of the board of directors and of the executive committee.

Another announcement of the board of directors of the Marland company is that W. H. McFadden has resigned as vice president and member of the board of directors and member of the executive committee; and that Mr. Moran was elected a member of the board of the executive committee to fill the vacancy created by Mr. McFadden's resignation.

Concerning the changes, Mr. Marland made the following statement:

"It is a great satisfaction for me to announce that at a meeting of the board of directors of the Marland Oil Company, Daniel J. Moran was elected president of the company to succeed me, effective November 1.

"I resign because I will not be able to give as close attention to the affairs of the company in the future as I have in the past. I am to remain a member of the board of directors and of the executive committee. Mr. Moran has resigned as vice president and director of the Texas Corporation, with whom he has been associated over a period of 20 years, and will take up his duties as president of the Marland Oil Company promptly."

As head of the Marland company, Mr. Moran will be among the youngest of the presidents of major companies, being still in his early forties.

He became associated with the organization which is now the Texas Corporation immediately after leaving college, working first in the pipe line department for a while, and then for a long period in the refining department. In 1922 he was sent to Mexico, where he served as vice president and general manager of The Texas Company of Mexico, a subsidiary of the parent company. Subsequently returning to the United States, he became a vice president of the Texas Corporation, director and member of the executive committee and was placed in general charge of all the company's production departments.

Tulsa Exposition Surpasses All Previous Efforts

By GRADY TRIPLETT
Staff Representative

TULSA.—(Special)—On the closing day of the International Petroleum Exposition and Congress which was opened here by Charles M. Schwab, New York capitalist and steel magnate, 10 days ago, the vote of the petroleum world is unanimously that the Tulsa event this year has far surpassed any industrial exhibition in the sixty-nine years of oil history, with its $10,000,000 display of field and plant equipment, and numerous instructive international and national conference and conventions, a symposium Monday disclosed.

Attesting the phenomenal success of the world's fair of the oil industry in statements presented to President William G. Skelly of the exposition, are the opinions of such men as John R. Nelson, director of the Petroleum Division of the United States Department of Commerce; E. W. Clark, president of the American Petroleum Institute; Dr. George Otis Smith, president of the American Institute of Mining and Metallurgical Engineers, Robert W. Stewart, chairman of the Standard Oil Company of Indiana; Frank Phillips, president of the Phillips Petroleum Company; S. W. Meals, chairman of the Natural Gas Department of the American Gas Association, and Charles B. Scott, immediate past president of the National Safety Council; A. W. Ambrose, president of the Petroleum Division of the American Intitute of Mining and Metallurgical Engineers; Charles M. Schwab, chairman of the board of the Bethlehem Steel Corporation, the Chicago Pneumatic Tool Company, and numerous other large organizations; H. A. Trower, president of the National Gasoline Association; J. C. Denton, president of the Kansas-Oklahoma Division of the Mid-Continent Oil and Gas Association; J. Edgar Pew, chairman of the Standardization Division of the American Petroleum Institute and vice president of the Sun Oil Company, and scores of others.

Throughout the 10 days of the exposition the leaders in the states of the Union and the delegates from abroad met at luncheons, banquets, smokers and conferences and furthered international understandings by the presentation on all sides of the problems of their home lands in an atmosphere of amicable relationship.

On the grounds of the oil show more than 100,000 visitors witnessed the drilling operations of six rig outfits of different types, the pumping equipment of the outstanding manufacturers, the operation of geophysical instruments, the modern natural gasoline absorption plants, refineries and air and gas-lift processes. Thousands were impressed with the work that has been done to make the oil field and the dangerous plants of the industry safe for the workman.

In the safety and first aid demonstrations were associated the United States Bureau of Mines, the National Safety Council, the Mid-Continent Oil and Gas Association, and the safety committee of the International Petroleum Exposition.

The most reassuring recommendation of the oil show is given by the exhibitors themselves who bought more than $100,000 worth of space in the grounds and paid nearly a million dollars to set up their displays, because these exhibitors, with perhaps a dozen exceptions, are asking to reserve space for the next exposition.

"Pioneers of the Oil Industry" Formed; James Amm Honored

TULSA—James Amm, 63 years ago an oil field worker along Oil Creek in Pennsylvania, is the Industry's choice as chief of the old timers. As a visitor at the exposition here last week from his New York home, he was named "Grand Old Man of the Oil Industry" at the age of 78.

James Amm, as grand old man of the Industry, heads the new organization "Pioneers of the Oil Industry," which grew out of the association of the pioneer oil men afforded by the annual exposition. A vote to apply for a charter for such an organization passed unanimously at a meeting held October 23, the day set aside at the exposition for honoring and welcoming the pioneers of the industry.

Officers for the organization for the coming year are Joseph H. Evans, Tulsa, president; James Amm, New York, vice president; O. K. Benedict, Tulsa, secretary and A. W. Leonard, Tulsa, treasurer. Directors of the organizaare: J. A. Connelly, Muskogee, Joseph H. Evans, John H. Markham, Jr., David Elliott and Hames Briody, all of Tulsa, James Amm, and W. H. McFadden of Ponca City. Barney E. Horrigan of Tulsa, as temporary chairman, presided at the meeting. A gold medal was presented Mr. Amm, and bronze medals presented the other pioneers present, by Governor Henry S. Johnston of Oklahoma.

Joseph H. Evans, president of the Devonian Oil Company and Tulsa's "Grand Old Man of the Industry," acted as host to the visiting pioneers and presided at a banquet given them at the Mayo Hotel Tuesday night following the meeting.

James Amm, born at Chippewa, Ontario, Canada, moved to Oil City Pennsylvania, at an early age. At 15 he entered the oil business via the roustabout's job and climbed to drilling for himself. He is reputed to be one of the first men in Eastern fields to consider structures as an indication of oil deposits. He retired from the oil industry nearly a quarter of a century ago, a successful operator.

The pioneers registered at the exposition are as follows: J. H. Evans, Tulsa; James Briody, Tulsa; J. A. Connelly, Muskogee; D. M. Elliott, Tulsa; Charles Sawes, Austin, Texas; Hugh McGivern, Tulsa; John W. Gray, Marietta, Ohio; William Sinclair, Humboldt, Kansas; R. B. Stewart, Brownsville, Texas; I. W. Hunter, Tulsa; L. S. Albee, Artesia, New Mexico; Martin C. O'Brien, Ramona, Oklahoma; E. R. McMullen, Kenbro, Kansas; W. G. McClune, Dewey, Oklahoma; G. F. Brown, Drumright, Oklahoma; George C. Partridge, Inola, Oklahoma; H. E. Partridge, Inola, Oklahoma; W. M. Neely, Wichita, Kansas; W. E. Klumph, Tulsa; C. M. Lawson, Coweta, Oklahoma; W. P. Roach, Oilton, Oklahoma; L. D. Gwynn, Tulsa; Alex Stephenson, Tulsa; John Christie, McCamey Texas; Andrew Jackson Sanders, Claremore, Oklahoma; E. F. Fowler, Tulsa; Henry Webb, Kansas City, Missouri; C. M. Trowbridge, Nowata, Oklahoma; T. C. Stephenson, Independence, Kansas; J. C. McBride, Borger, Texas; D. O. McCormick, J. A Kennedy, Tulsa; S. M. Morrison, Coffeyville, Kansas; William B. Delaney, Fort Worth, Texas; J. H. Mook, Fort Worth, Texas; James Amm, New York; G. F. G. Viger, Tulsa; John H. Markham, Jr., Tulsa; W. H. McFadden, Ponca City, Oklahoma; and James Crandall, Marietta, Ohio.

Operating Divisions Take Advantage Of Oil Exposition

Many organizations and societies given credit for making fifth annual show success; Tulsa people praised for community effort

By W. G. SKELLY

President International Petroleum Exposition

TULSA.—"I think every one will agree that the Fifth International Petroleum Exposition was by all odds the greatest yet held. In point of attendance, numbers of exhibits and truly international character, it surpassed its predecessors. The ideal weather that prevailed was, of course, a big help in contrast to previous shows.

"One fact has been firmly established and that is that the industry throughout the world now recognizes the exposition as a permanent annual affair of great value to the industry in all of its branches. The attendance of prominent bankers and leading men in the petroleum and other industries served to more forcibly emphasize this fact than ever before.

"The presence of such a distinguished industrialist as Charles M. Schwab on our opening day was extremely gratifying. And then came a succession of really big men. From all over the world they came. Men like Colonel Stewart of the Standard Oil Company of Indiana, and E. J. Sadler, vice president of the New Jersey Company; Judge Amos Beatty; formerly chairman of the board of The Texas Company; W. S. Farish, president of the Humble Oil & Refining Company; W. T. Ravenscroft, vice president of the First National Bank of Saint Louis; James G. Wakefield, vice president of the Illinois Merchants Trust Company, Chicago; Frank H. Houston, vice president of the Chemical National Bank, New York; W. T. McLucas, chairman of the board of the Commerce Trust Company, Kansas City; W. T. Abernathy, president, First National Bank, Kansas City; Thomas L. Robinson, vice president, Guardian Trust Company, New York; J. M. Kurn, president of the Frisco Railroad and other prominent railroad executives; Guerney Newlin, president of the American Bar Association; J. D. Collett, chairman of the proration committee in West Texas; H. C. Robinson, vice president of the Guardian Trust Company, Cleveland; George E. Benson, vice president of the Union Trust Company, Pittsburgh; John Geisner, sales manager of the National Supply Companies; M. L. Moore, Oil Well Supply Company, Dick Frick, of the Frick-Reid Supply Corporation; John Dillon, president of the Titusville Iron Works; John Reid, vice president of the Joseph Reid Gas Engine Company; John Crawford, president of the Parkersburg Rig and Reel Company, and a long list of similarly important executives and leaders were our guests during the exposition.

"I don't believe there was ever a more representative group of men interested, directly or indirectly in the oil business, under one roof than attended the annual dinner of the Mid-Continent Oil & Gas Association, one of many features of the exposition week.

"The exhibitors are all well pleased because they obtained concrete results from the huge sums they expended in order to properly display their wares. It was the most complete and comprehensive display of equipment and scientific exhibits ever assembled by any one industry. The displays in the Technical and Scientific Building alone were well worth a person's visit to the exposition.

"The practical good that was realized was best illustrated by the groups of field men, superintendents, gasoline plant operators, refinery men and so forth, who were brought in by the various companies. It was a post-graduate course for all of those men in the latest and most improved methods of operation in all departments of the business.

"Twenty-four foreign nations were represented by official delegates, all of them men of distinction in their home countries. Their contact with our American oil men at the exposition will result in much good, possibly lead to the extension of our American spirit of cooperation—more pronounced by the way at this time than ever before—to the oil fields of the world. Our neighboring country, Canada, had a large representation at the exposition, as well as Mexico, Rumania, South America, Russia, and other nations that produce petroleum.

"The government was well represented with officials of the Department of Commerce, and the Bureau of Mines. The latter conducted some of the most interesting displays at the exposition. This was true also of the Oklahoma Geological Survey.

"All of the 22 states in the union that produce oil were represented by large delegations.

"In closing I wish to express my sincere thanks to the board of directors and official staff of the exposition for their untiring efforts to make the exposition the success that it was. This was one board of directors that really functioned, each director performing his tour of duty by actually being on the job and many of them devoting their entire time to the exposition for several weeks. This is the spirit that has enabled the industry to meet its problems during the past year with greater success than ever before, and it is the spirit that will enable the exposition to carry on from year to year and become of constantly increasing value to our industry.

"I am grateful to the various associations in the industry that cooperated with us and arranged meetings to be held in Tulsa at the time of the exposition. These include such well known organizations as the American Petroleum Institute, Western Petroleum Refiners Association, Mid-Continent Oil & Gas Association, Natural Gasoline Manufacturers Association, Association of Petroleum Geologists, the Oil Field Scouts, American Mining and Metallurgical Engineers, and many others.

"The mayor and all of the people of Tulsa now realize that it is their exposition as well as the industry's and I am sure that the Tulsa hospitality extended to our many visitors made a very favorable and lasting impression upon them.

"The daily newspapers and the various oil trade papers helped immeasurably by giving the exposition, before and during the show, the greatest amount of publicity it has ever received. The civic clubs of Tulsa, the American Legion and others, all did their part in making the exposition the biggest and best one yet held."

Directors of the International Petroleum Exposition and Congress on the afternoon of the cloing of the oil show, October 29, presented a beautiful watch to J. Burr Gibbons, general manager of the petroleum event, as a token of appreciation. Engraved on the watch was:

"To Burr Gibbons from the Directors of the International Petroleum Exposition, October 29, 1928."

Visitors From Many Nations Attend Tulsa Exposition

Official figures show attendance of 108,903 at exhibits which were assembled at cost in excess of a million dollars

TULSA.—Attendance at the Fifth International Petroleum Exposition totaled 108,903 or 10,890 persons average daily, the management announced October 30.

Largest attendance was October 25, with 14,313 persons.

Cash receipts from ticket sales amounted to $30,007.25.

An estimate of $10,000,000 in equipment and supplies was displayed at the exposition by 450 firms represented. There were 276 exhibitors contracts, including 21 bureaus, associations and organizations exhibiting in the Scientific Building. Front footage displays equalled two lineal miles.

The management estimates the cost of the exposition to exhibitors, including space, freight, hauling, installation, railroad fares, hotels, entertainment, advertising, souvenirs, etc., amounted to roundly $1,000,000.

Twenty-one countries were represented and 70 representatives from foreign nations were present, as follows:

C. E. Bowes, Toronto, Canada, petroleum geologist;

Dr. E. T. Lehner, Trinidad, British West Indies;

F. Leo Melvill, Trinidad, British West Indies, general agent, Trinidad Leaseholds, Ltd.;

J. C. Garcia, Quito, Ecuador, government representative;

E. R. Kirkpatrick, Maracaibo, Venezuela; Lago Petroleum Corporation;

Trinidad Paredes, Mexico City, Mexico;

Ester Wade Paredes, Mexico City, Mexico;

Garcia V. Ginto, Buenos Aires, Argentine, Argentine Government;

Herman Bruner, Buenos Aires, director Journal of Mines;

F. Paredes, Mexico City, Mexico, geo-physics;

C. T. Campodonico, Buenos Aires, Argentine Government oil engineer;

George Anagnostache, Rumanian Government delegate;

H. E. Hickman, Mexico City, Mexico, Mexican Pierce Oil Company;

W. Korobovkin, U. S. S. R. Doeeop Loadben, New York, E. M. Baneft;

Jean N. Oparin, U. S. R. Moenba Mescreeykad, A. F. Heft;

Oscar Woinaresky, Bucharest, Rumania;

Victor Dumitrescu; Bucharest, Rumania;

Ernest Dimitriu, Bucharest, Rumania;

Jack Burden, Tampico, Mexico, Mexico Sheldon Burden Drilling Company;

F. B. Bimel, Toronto, Canada;

W. E. Bonner, Tampico, Mexico;

Dr. Ing Karlglinz, Berlin, Germany, university of Berlin;

John Bolton, Vienna, Austria, Ingersoll-Rand, G. M. C. H. manager;

George Calleya, Bucharest, Rumania, government engineer;

Marharita Calleya, Bucharest, Rumania;

D. Carlos Grisanti, minister of Venezuela;

Pedro Marques River, Legation of Venezuela;

Mr. and Mrs. A. R. Tillotson, Tampico, Mexico;

Nicholas Antonoff, U. S. S. R., Amtorg Trading Company;

C. B. Hulbert, Oil Well Supply Company, Tampico, Mexico;

Carleton J. Anderson, Oil Well Supply Company, London, England;

Ivan W. Klimkiewicz, Poland, journalist;

Eduardo Saubidet, Buenos Aires, Argentine;

J. H. Larsen, Galara, Peru;

V. N. Andreer Galara, Peru;

Count Allessandro Cenci-Bolognetti, Rome, Italy;

T. N. Vanzant, Kantex Refining Company, Toronto, Canada;

A. L. Wilson, Galt, Ontario, Canada;

W. S. Applegate, Calgary, Canada;

B. C. Ketchen, Imperial Oil Company, Toronto, Canada;

L. E. Bury, Imperial Oil Company, Toronto, Canada;

Senor Luis Coll Pachero, Venezuela;

K. A. Susuki, Orange Petroleum Corporation, Okayma, Japan;

H. D. Chittenden, Oil Well Selection Company, London, England;

Senor Luis Corredor Latorrc, General Council of Colombia, Colombia;

T. Ohno, Nippon Oil Company, Ltd., Tokyo, Japan;

Emile Miguet, Cie Francaise Des Petroles, Paris, France;

Pierre Lesimple, Desmarais Freres, Paris, France;

Dr. Logu Li, Korea, Japan.

Key to the Pictures on Opposite Page

1—Harry Botsford, Titusville, Pennsylvania, Secretary of the Society for the Development of International Combustion Power, trump that for long titles.

2—Left to right: G. A. Renard, national secretary Purchasing Agents Association; G. A. Thompson, purchasing agent Empire Companies, Bartlesville, Oklahoma; and A. M. Bowman, president National Purchasing Agents Association, and purchasing agent Humble Oil & Refining Company, Houston.

3—Geo. J. Dugosh, manager Oil Well Supply Department, Alamo Iron Works, San Antonio, Texas, left; and Raymond "Lizzie" Ford, district sales manager Williamsport Wire Rope Company, Houston, taking a look at the exposition through rose colored glasses.

4—J. B. Elliott, Tulsa, and W. J. Brown, Fort Worth, proved that the size of their "Fort Worth Spudder" was no handicap when it came to competing with the big outfits for noise making.

5—Left to right: M. E. Standifer, field superintendent Humble Oil & Refining Company, at Goose Creek, Texas; M. "Bink" Manning, general field superintendent Gulf Coast district, Humble Oil & Refining Company; E. S. Walne, Mexican Eagle Oil Company, Tampico, Mexico; L. O. Koen, W-K-M Company, Houston; and Mrs. E. S. Walne.

6—W. T. Young, president Young Engine Corporation, Canton, Ohio.

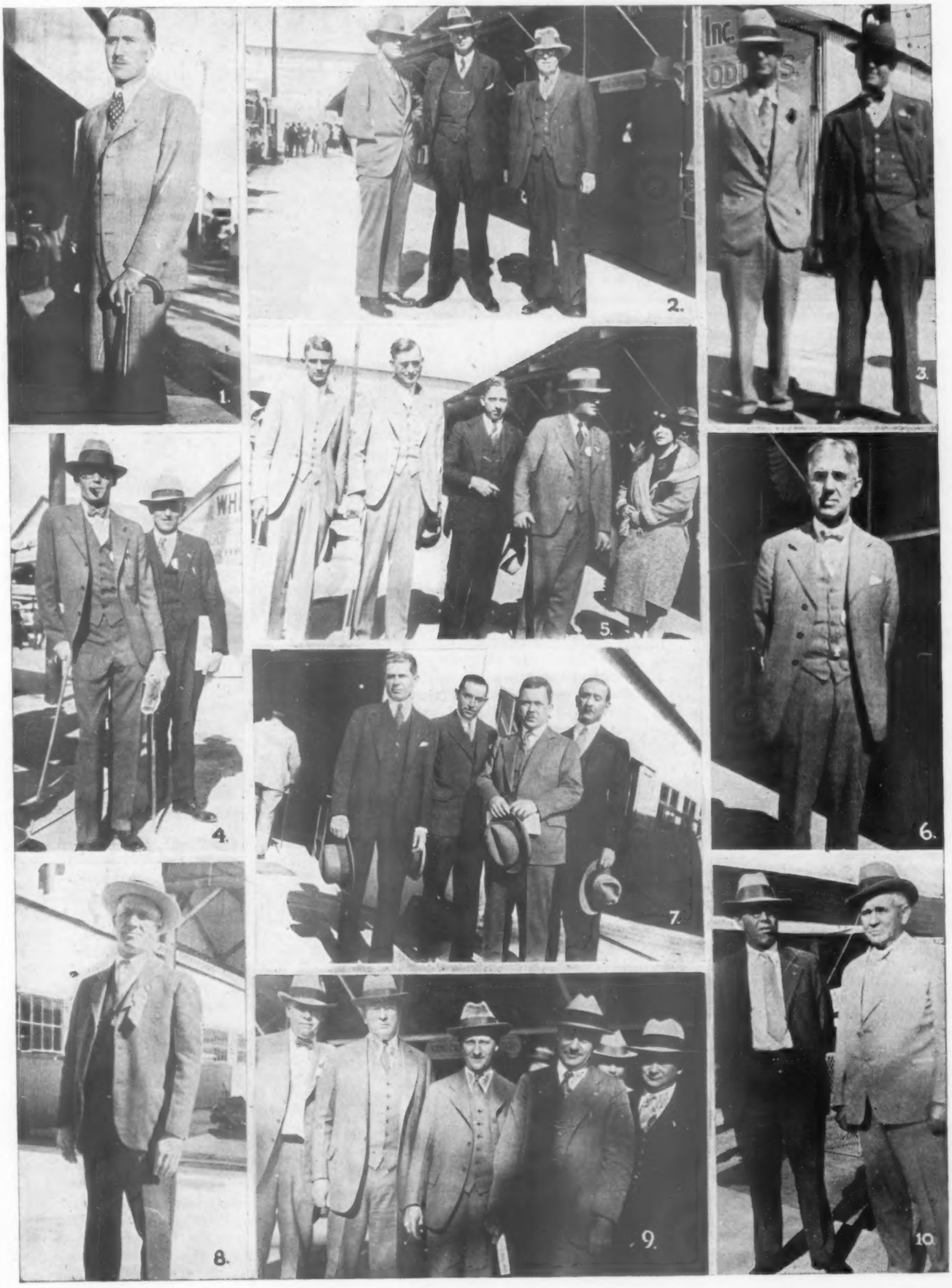
7—Left to right: Jean N. Oparin, general representative Amtorg Trading Corporation; E. Meerson, chief engineer, Dossor Oilfields, Dossor and Moscow; W. Korobovkin, president Oil Trust Embaneft, Moscow; and N. Antonoff, mechanical engineer, Amtorg Trading Corporation. They were the principals representing Russia at the exposition.

8—J. Burr Gibbons, general manager International Petroleum Exposition.

9—Left to right: R. M. Young, president Carter Oil Company; W. S. Farish, president Humble Oil & Refining Company; John R. Suman, director in charge of production of the Humble outside the Gulf Coast district; H. H. Hill, engineer, Standard Development Company, and formerly director Bureau of Mines; and W. W. Scott, engineer, Humble Oil & Refining Company.

10—R. F. Longsworth, district superintendent Tidal Oil Company, Wynona, Oklahoma, right; and his brother H. B. Longsworth, district superintendent Marland Production Company, Coffeyville and Sedan, Kansas.

Caught by the Camera at the Exposition



Demand for Conservation Makes Sherman Law Obsolete

It was a good law when enacted but change in economic thinking has come about, Newlin tells Mid-Continent Oil and Gas Association

TULSA.—Conservation was the topic of the annual dinner of the Kansas-Oklahoma Division of the Mid-Continent Oil & Gas Association, held here the evening of October 24, following the annual meeting and election of the division that afternoon. The dinner was conducted as a round table discussion, with conservation considered from many angles.

Gurney Elwood Newlin, a director of the Union Oil Company of California and president of the American Bar Association, presented the legal phase of conservation as it applies to the petroleum industry. His subject was "The Law and Posterity." In this he traced the trend of laws, as they are changed to fit changing economic and social conditions. He said the Sherman anti-trust law was put into the federal statutes at a time when it was needed and that it had served to good purpose.

The demand for conservation not only of oil but of other resources he classed as a different trend of social and economic thinking. With that has come a demand for a change in legal harness to make conservation possible. On this change he said:

"Then there came forward the demand, possibly not yet a demand but a suggestion, that we must intelligently use that which we have. We must conserve as long as possible that which can not be replaced and to those far-seeing and with knowledge came the answer:

"'You can not save, you must produce. We who live must use it all. You can not agree to save—the law passed 37 years ago prohibits saving. Strip your mines, pour forth your oil, denude your forests, waste your fisheries, at a loss if need be, but give and give it cheaply. The laws of states and of congress forbid you to do otherwise.'

"The fallacy of the law has always been to protect not only those living but also the generations to come. As the consciousness of the people turned toward preservation and conservation of our natural resources, lawyers immediately endeavored to work out ways and means whereby the law could respond to the consciousness.

Work of Bar Association

"There was created by the American Bar Association in 1926 the section on mineral law for the purpose of studying the legal aspects of matters pertaining to production and marketing of our natural resources.

"In 1927 the Secretary of the Interior called the association's attention to the waste that was daily occurring in the petroleum industry through overproduction. He requested that a committee be appointed to confer with the committee appointed by the industry and one named by the government to work out ways and means whereby this waste could be legally avoided.

"Pursuant to this suggestion on the part of the government a committee of nine members was appointed by the chairman of the mining law section, which I had the honor to hold at that time, for the protection of the future. This committee met with the other committee with the result that the American Bar Association at Seattle recently approved a bill which will be introduced in congress when it convenes.

"This bill is to permit in times of overproduction and uneconomic production a curtailment, subject to the consent and approval of the Federal Oil Conservation Board and providing such an agreement shall not be in violation of the Sherman anti-trust act, or considered a restraint to trade.

"It was the first step ever taken by a duly constituted body of lawyers, constructively endeavoring to work for the preservation of our heritage and conservation of that which can not be replaced. It is an illustration of the law marching hand in hand with economic and social development."

Amos L. Beaty, former chairman of the board of The Texas Company, paid tribute to the oil producers of Oklahoma and Texas for what they have done toward conservation without the assistance of laws. He said the accomplishment impressed him with the truth of the adage, "the fewer laws the better."

"I can not conceive," he said, "of any set of laws that would have the successful results equal to what these producers have accomplished without laws."

George Otis Smith, Director of the United States Geological Survey, traced the trend of conservation and told of the sympathetic attitude of the government in this effort.

Message From Texas

J. D. Collett, former president of the Texas Division of the Mid-Continent Oil & Gas Association, and now chairman of one of the proration committees of West Texas, brought a message from Texas for oil producers of Oklahoma. He gave figures, showing how oil is being withheld from pipe lines and storage in West Texas and then pointed to the difference in effectiveness in Texas, as compared with results in Oklahoma. He classed the condition as one not fair to the producers of West Texas.

R. F. McArthur, vice president of the Barnsdall Corporation and a leader of proration activities in Oklahoma, gave the purpose of the effort in Oklahoma, which he said was to hold production down to actual needs and thus to prevent what he termed "dead storage."

W. S. Farish, president of the Humble Oil & Refining Company of Houston and a former president of the American Petroleum Institute, drew a distinction between conservation and proration. Conservation he classed as the drawing upon natural resources without waste and in response to economic needs. He defined proration as a fair and just distribution of oil as it is taken from the ground.

J. E. Denton, vice president of the Mid-Continent Petroleum Corporation and president of the Kansas-Oklahoma Division of the Mid-Continent Oil & Gas Association, was toastmaster.

Critchlow Wins Exposition Golf Tournament

Tulsa, Oklahoma.—For the second successive year Walter Critchlow of Ardmore shot his way to the top in the annual exposition golf tournament, a feature of the International Petroleum Exposition. Critchlow went into the finals against J. R. Robertson of Wichita, Kansas. On the seventeenth hole and the thirty-fifth of the match, Critchlow was two up on Robertson, who proved a dark horse of the tournament.

Results in the other ten flights of the tournament were:

Class A, Townsend Wilson, Tulsa, defeated Early Berryhill, Tulsa, 1 up.

Class B, John Risk, Tulsa, defeated J. C. Brandon, Butler, Penna., 1 up.

Class C, Paul Wilson, Tulsa, defeated H. N. McMillan, Bristow, 7 and 6.

Class D, E. C. Harvey, Tulsa, defeated C. E. Dial, Bristow, 1 up.

Class E, George F. Thomas, Tulsa, defeated J. E. Whitehorn, Tulsa, 2 and 1.

Class F, R. R. Kirchner, Bristow, defeated E. C. Stewart, Tulsa, 3 and 2.

Class G, J. H. Mitchell, Tulsa, defeated L. S. Mitchell, Tulsa, 4 and 3.

Class H, E. L. Connelly, Tulsa, defeated T. H. Matkin, Bartlesville, 3 and 2.

Class I, B. G. Stiles, Tulsa, defeated J. D. McClure, Tulsa, 5 and 4.

Class J, Pat McAndrew, Tulsa, defeated H. E. Bramsford, Tulsa, 1 up.

Sharp Decline Makes Oklahoma Situation Look Better

Little River and St. Louis pools share equally in drop of 15,000 barrels; more salt water appears in Wilcox sand at St. Louis

By WALLACE DAVIS
Staff Representative

TULSA.—A sharp decline in Oklahoma's flush crude production over the past week-end characterized the leading interest in the state during the week. More salt water in Wilcox sand in St. Louis field, the state's star producer, added to make the upper Mid-Continent crude situation look brighter.

It is coincidental that production declined at Greater Seminole and St. Louis with the first cold weather break. The fact is that cold weather is attributed to have had little part in these fields' production decrease. Rather failure of new wells of great significance during the week to halt the natural downward trend figured mainly in the decline.

The yield of Oklahoma's flush areas decreased more than 15,000 barrels in daily output from October 22 to 29, with Little River and St. Louis pools sharing almost equally in the drop.

St. Louis Production

St. Louis registered a decline from 124,210 barrels to 115,951 barrels from October 27 to October 29 from 97 Simpson sand producers and 35 Wilcox producers. Hunton lime production from approximately 75 wells amounts to roundly 3000 barrels, which shows little fluctuation. Wilcox and Simpson production for three days compares as follows:

St. Louis	Wells	Oct. 27	Oct. 28	Oct. 29
Simpson sand	97	34,499	33,579	30,077
Wilcox sand	35	89,711	85,337	85,874
Total	132	124,210	118,916	115,951

Magnolia Petroleum Company's Tull Fyke "C" 1, NE SE SE Section 20-7-5, east of St. Louis Wilcox production, got water in Wilcox sand late in the week at 4260-62 feet. It offsets to the west Indian Territory Illuminating Oil Company's Weems 1, which a week before got water in Wilcox sand at 4275-4303 feet, thereby fairly condemning this immediate vicinity that once loomed as good prospective Wilcox pay. The latter failure made 90 barrels from Simpson sand above the Wilcox, and was plugged back to 4200 feet for a small producer.

T. B. Slick's Linn 1, NE NW NE Section 30-7-5, which offsets the prolific Wilcox acreage on Independent Oil & Gas Company's Stahl lease to the west, got water in Wilcox sand at 4263-75 feet, but made 430 barrels from Hunton lime at 3854 feet. Linn 4, a west offset to No. 1, got water in Wilcox sand at 4260-80 feet. It was being plugged back to Simpson sand at 4277 feet.

Roxana Petroleum Corporation's C. A. Youts 1, NE SW Section 28-7-5, southeast of St. Louis field production, found Hunton lime low at 4055 feet, the Viola lime at 4150 feet and the Simpson sand low at 4225 feet. Magnolia Petroleum Company's Tull Fyke "B" 1, a south offset to Mid-Continent Petroleum Corporation's Guinn 1 extension east of St. Louis Wilcox production, swabbed 1657 barrels from Wilcox at 4144-55 feet. This compares with Guinn 1 production of 3307 barrels initial yield from Wilcox sand at 4229-37 feet two months ago.

Viola Well at Pearson

An interesting well which extended Pearson pool production one location east, is Healdton Oil & Gas Company's No. 1, completed for 305 barrels in 14 hours Monday from Viola lime at 4213-18 feet. It is the first Viola lime producer on this side of Pearson pool, and will cause some nearby locations to be deepened from the Hunton to this formation. Location is SW NW NW Section 20-7-4. Gypsy Oil Company and Independent Oil & Gas Company have Hunton production on the west of the well.

Independent Oil & Gas Company and McCulloch Oil & Gas Company's Mahtatwas 1, NW NE SE Section 30-7-5, which got a hole full of water in Wilcox sand at 4487-90 feet early in October, has resulted in the abandoning of three other locations on this 40-acre lease after rigs were up. No. 2, NE SE; No. 3, SE NE SE; and No. 4, SW NE SE; have been considered poor prospects for production and are being moved out. Mahtat-was 1 has been plugged back to 4445 feet in Simpson sand and swabbed 90 barrels of oil in 24 hours and one-half bailer of water per hour.

Seminole Production Down

Production from Greater Seminole fields continued on the downward trend through the week, and Monday stood at 308,387 barrels, near a new low level since the flush output of Little River field. Following is production for October 27 and 29 as compared with October 21:

Field—	Wells	Oct. 21	Oct. 27	Oct. 29	Wls.
Little River	290	129,802	126,433	121,813	293
Maud-Mis'n	16	1,327	1,614	1,230	16
Bowlegs	312	51,327	50,058	51,125	311
Earlsboro	281	79,825	78,684	78,550	282
Seminole City	287	43,919	43,916	44,222	288
Searight	67	11,980	11,793	11,447	67
Total	1252	318,180	312,498	308,387	1257

Champlin Refining Company announced location late last week for McCiesey 1, SE SW 5-7-6, a semi-wildcat test west of Gypsy Oil Company's discovery two miles west of Little River field proper.

Out of a total of 102 wells drilling in the five pools of Greater Seminole October 25, there were 64 below 3700 feet and due for completion before December 1. Forty of these were at Little River and 15 at Earlsboro. This status of the drilling activity now under way in the immediate territory reveals that the bulk of present activity will be completed before the close of 1928; and, inasmuch as little new work is being started in Greater Seminole, the major portion of Seminole district work is past.

Atlantic Oil Producing Company and Gypsy Oil Company's Thomas 1, SW NE NE Section 32-15-7, a wildcat west of Earlsboro field, was drilling October 26 at 3990 feet, depth sufficient to attract considerable attention from Greater Seminole and Maud area operators.

West of Little River field, near extension production of Gypsy Oil Company, Barnsdall Oil Company last week got a hole full of salt water in Walker 2, Section 4-7-6, in Wilcox sand at 4650-75 feet. Empire Oil Refining Company's Charty 1, quarter mile extension two weeks ago, has been put on air lift and flowed 750 barrels October 25. Location is NW NE NW Section 24-7-6.

Independent Oil & Gas Company's Alfrey 1, SW NE Section 7-9-5, west of Earlsboro, had a show of oil in Hunton lime at 4165 feet October 24, and has set eight-inch casing at 4160 feet. Amerada Petroleum Corporation's Hallum 1, NE SE SE Section 1-8-4, northwest of Maud pool of Pottawatomie County, topped Woodford chert late in the week at 3995 feet and was below 4100 feet October 26.

Tonkawa Extension Well Holding Up

Tulsa.—The Texas Company's Smith 1, SE NW Section 29-25-1w, a quarter mile west extension to Tonkawa field, which was completed more than two months ago, is still holding at 100 barrels of oil and 2,500,000 cubic feet of gas from chat formation at 4525 feet. The only offset operation is being drilled by The Texas Company, with Cassity 1, a south offset, at 3820 feet.

Shell Buys Pipe for Line To Houston

Tulsa.—Orders have been placed with the National Tube Company, Pittsburgh, and Youngstown Sheet & Tube Company, Youngstown, Ohio, by Shell Pipe Line Company for approximately 50,000 tons of steel pipe for construction of its 450-mile 10-inch oil line from Upton County, West Texas, to Houston. The terminus of the line is on the Houston ship channel, where Roxana Petroleum Corporation owns a site to be used for a 35,000 barrel refinery to be erected soon.

The Shell Pipe Line Company's new Texas line is expected to be running oil early in 1929. Pipe deliveries are to be started during November, and completion of the line will be made in less than four months, fair weather permitting.

While the daily capacity of the new line will probably be 35,000 barrels, enough to supply the Houston refinery, additional boosters later would be able to raise this capacity to 45,000 barrels. The line will be equipped with electric pump stations as are used on its Texas-Chicago line.

Completion of the West Texas-Houston line will give the Roxana Petroleum Corporation direct carrying capacity out of the West Texas fields of approximately 80,000 barrels daily.

A. K. Riddle, Shell Pipe Line Company superintendent, headquarters at Cushing, Oklahoma, will be in charge of the new line work, and will move his office to Houston at least temporarily.

Extending Rail Line to Roxana's Houston Site

Houston.—Definite indication that the Roxana Petroleum Corporation will build a refinery on its tract of land on the Houston Ship Channel near Deer Park was given this week through the announcement that the Port Terminal Railroad Association will extend its tracks four miles to Deer Park, where no industrial development has been contemplated aside from the proposed Roxana refinery.

Colonel B. C. Allin, port director, would not comment to newspaper men as to the erection of a refinery, but said that the tracks are being laid under an emergency act and that bids will be opened November 8. It is reported that the work, which is expected to cost around $140,000, will be completed before January 1.

An Associated Press dispatch from St. Louis on Monday of this week quoted an official of the Roxana in that city as saying that the company has decided to go ahead with plans for the refinery at Houston, and that plans for the project had been ordered prepared. That official, however, according to the report, would not estimate the cost of the plant or say when the work would start.

The Roxana purchased the Deer Park acreage about January 1, 1928, but no announcement was made as to the use that would be made of it.

In line with the assumption that the Roxana will build a refinery at Houston comes the announcement that the company has asked for bids for supplying pipe for the proposed line from West Texas to the Gulf Coast.

McPherson Gas Area Gets Second Oil Well

Wichita, Kan.—The McPherson County gas area got its second oil well late last week with completion of Mid-Continent Oil Corporation and R. B. Fields' Hawkinson 1, NW SE Section 32-18s-2w, for an initial yield estimated at 230 barrels from chat at 2970-71 feet. The well was reported cutting and testing 31 gravity after treating. Sinclair Pipe Line Company is taking the oil from the new well and also from Mid-Kansas Oil & Gas Company's Larson 1, oil discoverer at McPherson field. Larson 1, located in the NE SW Section 31-28s-2w, is better than a 100-barrel well, but still making water after completion more than two months ago.

McPherson County Gas Company is taking the gas from the 13 gas wells in the field for industrial and domestic utilization in the surrounding area.

Seminole Output Falls to New Low Point

Tulsa.—Greater Seminole declined to a new low since the development of South Little River, gauging 302,834 barrels Tuesday, a decrease of 5551 barrels under Monday. Every pool in the group contributed to the slump.

St. Louis field gauged 126,783 barrels Tuesday, an increase of 3104 barrels over Monday.

T. B. Slick's Wood 1, NE SW of Section 26-7-6 extends Little River production a mile south, flowing 1250 barrels from Cromwell sand at 3325-31 feet, but is cutting nearly 20 per cent. b. s. and water. It was a failure in Wilcox sand, getting salt water at 4464-65 feet.

McCullough Oil and Gas Company and New England Oil and Pipe Line Company's Rentie 1, NE NW NW of Section 7-9-6, flowed fifty million feet of gas from Earlsboro sand at 3737 feet, moving the Earlsboro east extension production line a quarter mile south.

Mission field had 54 locations October 30, including a few drilling wells started before the existing plan of development was devised. Present plans are to spud November 15 with February 15 as completion date.

A meeting of operators is planned by Umpire Ray Collins to consider the starting of a second crop of wells around January 1 to avoid rush development, and also withhold many of the locations which otherwise might be spudded soon after November 15.

Additional activity around Pure Oil Company's Lindsley 1, Misner sand extension well, SE SW SE of Section 18-8-5, to Maud field, was started early this week with six new locations as follows:

Pure Oil Company, Lindsley 3, NW SE of Section 18;

Tidal Oil Company No. 1, NE SW SW of Section 18;

Phillips Petroleum Company, No. 2, SE NE NW of Section 19;

Darby Petroleum Company, No. 1, NE SE NW of Section 19;

Pure Oil Company, No. 1, NW SW NE of Section 19.

Southwest of Barnsdall Oil Company's Fife 1, Wilcox sand discovery well in NE NW of Section 14-8-5, four locations are being staked.

Barnsdall No. 2, SW NE NW, No. 3, NW SE NW; Magnolia Petroleum Company No. 1, SE NW NW, and Gypsy Oil Company, No. 1, NE SW NW of Section 14.

Second Edwards Lime Well in Bruner Field

Houston.—Lutex Oil Company's Wilson 2 in the Bruner field near Luling has been completed as the second Edwards lime producer of the field, the bottom of the well being at 2710 feet. Reports in Houston on Monday showed the well to be flowing through tubing at the rate of about 175 barrels per day, 25 per cent. water. Early reports were that the well started off swabbing 1500 barrels, but the production dropped off, and tubing was run.

This well is several locations west of Sun Oil Company's Malone 1, discovery well of the Edwards lime production in the field, which is bottomed at 2743 feet. On Monday of this week the Sun Company well produced 625 barrels, flowing through tubing. It was completed on October 10 as a 735-barrel well, making 35½ gravity oil from the Edwards at 2735-43 feet. By October 15 the production dropped to 340 barrels daily as a low mark, when tubing was run, bringing the production back above 600 barrels. Magnolia Petroleum Company is running the Sun well oil for purchase, but only pays Luling's posted price of $1.00 per barrel; although the Bruner field oil is much higher in gravity than the Luling oil and shows only 0.82 per cent. sulphur content.

The Bruner field is about one and one-half miles north of the town of Luling.

According to a report, which could not be verified in Houston, the Atlantic Oil Producing Company has already exercised an option which it held to purchase 203 acres of leases in the Bruner field from the Lutex Oil Company, of Los Angeles, for approximately $1,500,000. This includes all of Lutex Oil Company's holdings in the field with the exception of 12 acres. About a week ago it was learned definitely from officials of the Atlantic that that company held the option as stated above; and that the option would hold good until 10 days after Atlantic could drill and complete a test to the Edwards lime horizon.

Three Wildcats in Yates Area Show Possibilities

Drilling becoming active in Winkler County following extension of Hendrick field; Big Lake well still drilling beyond record depth

By H. H. KING
Staff Representative

SAN ANGELO, Texas.—A trio of wildcats trying for production in the Yates field lime horizon in Pecos and Crockett Counties were being watched with interest during the past week, as small traces of oil were encountered in each while a gas flow with spray may be the forerunner of a new shallow pool for the county. The latter wildcat was scheduled to drill in early this week but inclement weather caused a delay.

Moncrief and Zoch et al's wildcat test in northeastern Pecos County was drilling at 1340 feet Tuesday after encountering a small show of oil in top of the lime, while the Furhman Petroleum Corporation's Crockett County wildcat was in lime at 1840 feet without further showings.

Drilling operations in Winkler County are again registering an upward trend as a result of new locations proven up by extensions given the Hendrick field to the north, south and east, while the O'Brien and Llano pools promise to become very active shortly. The latter two new producing areas will have a dozen operations each underway in a few weeks, and two tests have cemented casing on the big lime preparatory to drilling in next week in the Llano pool. Although these two areas have only three flowing wells on production at present, they are included in the Hendrick field proration plan and cut in on the allowable production assigned to the latter field.

Making five to ten feet of hole daily with cable tools Group One Oil Corporation's (Texon) University 1-B, located in the Big Lake field continues to stretch its world's record for depth, and early this week was drilling in black lime at 8401 feet.

Alexander-Lyles-Eastland Oil Company et al's wildcat test on the Sellman-White land is located 1402 feet from the east and 258 feet from the south lines of Section 20, Block "Z," T. C. Ry survey, and about six miles west of the Yates field. It is reported to have logged the top of the salt at 814 feet and the top of the lime at 1602 feet, with a surface elevation of 2672 feet. The well has been making in excess of three million cubic feet of gas with light spray of low gravity crude daily for several weeks from pay at 1611-26 feet, and is considered the best bet scored to date in making a commercial producer from the Yates field horizon. The initial showing made by this wildcat has resulted in the Atlantic Oil Producing Company starting a test about one mile to the north, with location of the same farm, being 330 feet from the southwest corner of the southeast quarter of Section 19, Block "Z." Commercial oil production in either of these two tests will result in an active development program being launched by nearby lease owners, as only a few are participating in the flush production offered by the Yates field.

F. P. Zoch-W. A. Moncrief et al's wildcat test on the Cordova Union fee land, located about 12 miles northwest of the Yates field, and near the center of Section 35, Block 12, H. & G. N. Ry. survey, Pecos County, commanded attention late last week when a show of gas with trace of live oil was encountered at the base of the big lime horizon at 1230 feet. This test is credited with having a surface elevation of 2275 feet, but failed to encounter further evidence of production when carried to 1310 feet Monday.

The third nibble for production in the Yates horizon occurred also during the past week when the Furhman Petroleum Corporation's wildcat test on the Padgett land, located in western Crockett County and about five miles north of Fort Lancaster, encountered oil showings at 1760 feet and 1771 feet, but was drilling at 1815 feet early Monday without further increases. This wildcat is being drilled by Gibson Brothers, who have contract to go to 2200 feet, and is located 300 feet south of the center of the northeast line of Section 17, S. C. White survey, Abstract 3003. It logged the top of the salt at 670 feet and the lime at 1440 feet, with a surface elevation of 2305 feet.

Faulty casing seats on big producers on the east side of the Yates field is resulting in oil and gas finding its way into the upper horizons, having contaminated shallow water wells serving camps in the field proper, and more recently the springs along the west banks of the Pecos River just above the water level of the stream. F. M. Morrison, Fort Worth, agent for A. L. Hawse, Richmond, Virginia, who now owns the Pecos River bed producing properties and drilling rights in the stream on the east side of the field, and W. E. Halbert, field superintendent for Hawse, have been salvaging about 100 barrels of pipe line oil daily from the river bank seepage. Morrison and Halbert have provided facilities for trapping the oil and water that comes out of the river bank, and are likewise protecting the stream from contamination.

Having shared liberally in the Yates field's quota of record size shallow producers, Mid-Kansas Oil & Gas Company and Transcontinental Oil Company completed the two smallest producers recorded in the field during the past week. Their Yates 3-F pumped five barrels of oil and 2½ barrels of water during the initial 24-hour test at 1277 feet, and their Yates 4-G pumped five barrels of oil and one-half barrel of water at 1334 feet. The second anniversary of the Yates field was celebrated October 28, and during this comparatively brief period the field has contributed 272 wells with a combined potentiol daily yield of more than 4,000,000 barrels.

Southern Crude Moving to Fort Worth

Shreveport, La.—Headquarters of the Southern Crude Oil Purchasing Company and Southern Pipe Line Company, located here, will be moved to Fort Worth, Texas, at an early date, it was officially announced during the last week by Sheldon Hardin, president of the companies. Removal of the headquarters to the new location is caused by a need to have the headquarters nearer the companies' principal holdings and operations which are now in West Texas. Approximately 80 families will be added to Fort Worth's population by the move.

Oil in Hole for Test on Dry Creek Structure

Red Lodge, Mont.—The Ohio Oil Company's wildcat on Dry Creek structure in Montana is reported to have 500 feet of oil standing in the hole, and to be making about ten million cubic feet of gas. The well is standing on top of the second Frontier, and is bottomed at 4467 feet. A fishing job is delaying the completion of the well.

Good production in this well will mean the proof of another field in the Rocky Mountain region.

Bakersfield, Calif.—The Richfield Oil Company and the Lincoln Drilling Company made a production test in their Kerwin 1, Section 21-26-22, near Semitropic, but the well showed only gas and salt water from 3825 feet.

The Charles N. Hough Manufacturing Company has recently established a Texas branch at 1632 West Humbolt street, Fort Worth, in charge of C. R. Brooks.

Henshaw-Settles Area Under Advisement of Commission

BIG SPRING, Texas.—Ten or more tests are now scheduled to be drilled in close vicinity of the Henshaw Oil Corporation's wildcat oil producer on the Settles-Eason land, located about three miles west of the Chalk-Roberts deep pay area on the Howard-Glasscock County line. The discovery well, which is rated good for more than 5000 barrels of 34 gravity oil daily from lime at 2208-30 feet, has filled the bulk of the lease storage, and is pinched to about 100 barrels daily, pending a decision from the Texas Railroad Commission as to whether this area will be given a separate proration plan, or included in the Chalk-Roberts field plan, with an increased allowable production for the latter area.

Members of the Commission held a night session in Dallas October 24 to hear the petition filed by officials of the Henshaw Oil Corporation and other nearby lease owners for a separate proration plan for the new area. Testimony was given as to the difference in pay horizons, nature of formations and quality of crude found in the Henshaw-Settles area as compared to the original deep field. The Railroad Commission was represented by all three commissioners and Chief Supervisor R. D. Parker, and postponed a decision on the matter until a later date to study the evidence brought out at the hearing. Complaint registered by the F. H. E. Oil Company against the Magnolia Petroleum Company for alleged violation of proration rules in the Chalk-Roberts field, governing the number of wells to be drilled to each 40-acre unit was submitted to the commission at the Dallas hearing, but action on the matter was likewise deferred pending a study of the evidence submitted.

A small producer was scored by the Taylor-Link Oil Company's Kloh-Rumsey 1, located less than a half mile north of the Henshaw-Settles discovery well during the past week, after drilling broken lime pay at 2262-2389 feet, with water showing at the bottom. This well swabbed 140 barrels of oil Sunday, and is to be plugged back for a shot. The gravity of the oil is reported to be lower than that encountered in the discovery well. However, Henshaw Oil Corporation and the Louisiana Oil Refining Corporation are starting offsets to the southwest and south of this new producer. The latter concern has a 20-acre lease, and is drilling an east offset to the discovery well on same, while the Henshaw Oil Corporation is starting two new tests on a line to the east of the Louisiana test. Group One Oil Corporation and Marland Production Company, operating jointly, are starting a test further east on this same row, thus placing five in a line. The latter are also starting two new tests on the south end of the pool. Louisiana Oil Refining Corporation's Kloh-Ramsey 1, located about three-quarters of a mile north of the discovery well, is running low on structure, and early this week was drilling at 2305 feet.

The spread of water in the deep lime horizon in the Chalk-Roberts field is reported to be on the increase, and a failure was registered on the south end during the past week when Cosden & Company's Roberts 1-E, located in the northwest corner of the southeast quarter of Section 157, missed the pay and went into water at 3052-53 feet. Magnolia Petroleum Company's Roberts 3, 4 and 10 are making water averaging about 10 per cent. of the fluid pumped. Cosden & Company's four completed wells on the south line of Section 129 are showing water, while Sun Oil Company's Settles 3, a recent completion, is likewise making a large percentage of bad oil, but this may be due to faulty casing seat.

The northeast edge of the Chalk-Roberts deep area is considered open for further extensions, since Amerada Petroleum Corporation and Rycade Oil Corporation's Dora Roberts 1 swabbed 4300 barrels daily on official proration gauge from pay at 2933-78 feet, while the Schermerhorn Oil Company's Roberts 2-A, a south offset to the above producer, swabbed 1730 barrels on 12-hour test after encountering pay at 2925-78 feet.

Moore and Gray Counties Boost Panhandle Production

AMARILLO, Texas. — New peak production levels established last week by Gray and Moore Counties boosted the output of the Texas Panhandle district to the highest point reached since early last May. The district averaged 68,475 barrels daily during the past week, with Gray County accounting for 28,675 barrels of this amount, while two wells on production in Moore County contributed a daily average of 2130 barrels. The bulk of the new production being added to the district is coming from the Lefors and Bowers pools, Gray County, where 39 to 43 gravity oil, carrying a low sulphur content, is encountered in flush quantities from many of the completions. This Gray County crude is particularly in demand among the major and independent purchasers, and affords a greater revenue for the operators since gravity scale prices prevail.

Although current production in the Texas Panhandle is considerably below the level of the direct pipe line outlets, the purchasers continue to pay less than Mid-Continent gravity scale prices in making their postings. Gray County crude testing 40 gravity and practically free of sulphur, commands a posted price of $1.36 per barrel, or 20 cents below the price posted in the Mid-Continent for like grade, while this particular grade of crude in Carson and Hutchinson Counties is penalized in price twice as much. This condition has been a means of furthering development work in Gray County, and causing a corresponding decline in the Carson-Hutchinson area.

Gray County is furnishing about one-half of the operations underway in the district, having 54 tests underway at the close of last week and eight derricks and rigs. The flush production in the Lefors and Bowers pools is proving erratic, but sufficient big wells are brought in along with the pumpers to encourage new field work. In recent months one or more unusually large producers have been completed by The Texas Company, Lefors Petroleum Company, Mordyan Petroleum Company, Plains Drilling Company, Ray & Massie and Herrogan Oil Company. Phillips Petroleum Company developed a big producer for a brief period from its Davidson-Myson 2, located in the northeast corner of W½ of NW¼ of Section 87 and on the south end of the Bowers pool, in working same over last week. This well was completed last April making 40 barrels daily at 3060-74 feet, and was pumping 20 barrels daily when cleaned out and swabbed last week, resulting in a yield of 1500 barrels during the first 24 hour gauge. The production dropped in half on the second day, and to 310 barrels on the third day, thus indicating a freakish condition. It is an east offset to a dry hole.

Five tests are nearing the lime horizon in vicinity of Skelly Oil Company's two wildcat oil producers on the Armstrong & Byrd ranch, located on the Moore-Hutchinson County line, and four more tests are scheduled. Skelly Oil Company's two wells averaged 2130 barrels daily last week, including 1950 barrels from Armstrong & Byrd 3, which has been swabbing and flowing at a high rate since given a light shot in lime pay at 3178-94 feet about the middle of September. Two more tests are being started on the discovery lease by the Skelly Oil Company, while a like number are being drilled by the Dixon Creek Oil Company, pioneer operator in Hutchinson County. Phillips Petroleum Company is scheduled to complete two tests shortly, with rotary rig up for a third one, and McMan Oil & Gas Company is starting one on its 80-acre lease. Prairie Pipe Line Company has a small pipe line serving this area.

Cody, Wyo.—Cody Petroleum Company is reported to have placed an order for machinery for the construction of an absorption plant to operate on Oregon Basin gas. The plant will have a capacity of twenty million cubic feet of gas per day, and will cost about $150,000.

Burning Santa Fe Springs Well Making 4300 Barrels

New value seen in intermediate zone when recovery of flow through tunnel shows oil production; Long Beach decline continues

By BRAD MILLS
Staff Representative

LOS ANGELES. — The intermediate zone in the Santa Fe Springs field, found between 5000 and 5500 feet, is attracting wide attention, following the phenomenal showing made by George F. Getty's Nordstrum 17 under extremely adverse conditions. After exhausting every effort to extinguish the burning well, flow lines were connected through the tunnel and a battery of compressors hooked on to divert the supposedly small flow of oil. Springing one of the real surprises since the Buckbee zone was discovered several months ago, the compressors started pulling oil from the burning well at the rate of 4300 barrels per day. This discovery immediately led to the conclusion that the intermediate zone will be an important factor in the deep sand development, although it had been disregarded altogether by the average operator. Subsequent developments in the Star Petroleum Company's No. 2 supports the theory that the Getty well has been flowing from the intermediate zone and not the Buckbee zone. The Star Petroleum Company well cored good oil sand and streaks of shale from 4953 to 5393 feet, indicating that Nordstrum 17 has been producing from the complete thickness of the intermediate zone. Other operators are expected to core this zone and it is possible that it may yield a very large production.

In ushering in this new zone, Getty's Nordstrum 17 has the unique distinction of producing more than 4000 barrels of oil while blazing furiously. It is estimated that only two-thirds of the total production is being diverted through the tunnel. No effort will be made to extinguish the well until it is brought completely under control. If the fire was snuffed out the spray of oil would damage a wide area. The flow of oil had been estimated at less than 1000 barrels and the discovery that the well is actually producing about 6000 barrels and 10 million cubic feet of gas means that production probably was considerably higher when the well first blew out and caught fire. About 180 barrels per hour is being recovered, of which 150 barrels is being drawn through the main oil lines and 50 barrels through the gas lines. The three strings of casing were tapped and flow lines hooked on, by way of the tunnel.

4000 Barrels in Marten 2-7

The Texas Company has succeeded in placing Matern 2-7 on production, the initial yield showing 4000 barrels. This well was drilled to 5819 feet, with about 150 feet of sand included in the test. The action of this well removes all doubt concerning the zone and means that the field may even exceed expectations. Matern 2-7 is the third well to test the Buckbee zone.

Los Angeles, California. — The latest plan for the conservation of gas in Santa Fe Springs field calls for the organization of a non-profit corporation to be composed of the various operators in the field, which will have the power to handle all gas for repressuring the upper sands. The operators are considering the proposed corporation this week and will be given a chance to become members if the terms are agreeable.

Shell Company has not yet killed Slusher 12, which flowed 1300 barrels on the initial test and has been producing steadily for more than three weeks. The well is flowing from only a few feet of sand below the shoe of the water string. Production has dwindled to 600 barrels. The well was given a combination water shutoff and production test and has been allowed to flow pending the decision to kill and deepen.

Some fears were entertained that the Bellview Oil Company had a crooked hole in Grohs 1, but the well has picked up the Buckbee zone around 6000 feet. Cores showed the hole to be slightly crooked, however, causing the oil zone to be picked up about 150 feet deeper than expected.

Aside from the wells already completed, four wells have reached the top of the Buckbee zone. They are the McKeon Drilling Company's Y. and L. 1, now standing cemented at 4707 feet, Union Oil Company's Bell 30, standing cemented at 5660 feet, Bellview Oil Company's Grohs 2, coring ahead at 6005 feet, and the Associated Oil Company's Jordan 2, standing cemented at 5627 feet.

The Superior Oil Company's Wardman 4 and 5, previously reported as having been plugged back to 4000 feet, have been plugged back to 1250 feet. The 11¾-inch water strings were pulled above the Meyer zone. These wells reached the 6000-foot level in their rush toward the Buckbee zone, but had to be plugged back when a survey showed them to be extremely crooked.

Long Beach Decline Heavy

Despite a dozen completions, the Long Beach field failed to gain back any of its lost ground. The initial production of the 12 wells was about 8000 barrels, but the field decline was slightly heavier than usual.

The Shell Company scored heaviest with five completions. They were Alamitos 33, a 1250-barrel completion from 7344 feet, Babb Tucker 5, completed with an initial production of 850 barrels, Gresson 12, a 1400-barrel well, Fee 4, an 800-barrel well showing a cut of 60 per cent. and Wilbur 5, a 400-barrel producer cutting about 50 per cent.

Shell Company is running a string of 5¾-inch casing to test Wells 3 at 8087 feet. This is the deepest well ever drilled in the field and is expected to throw additional light on the possibilities of the 8000-foot level.

Seal Beach

Marland Oil Company's Selover 4 has developed into a much better well than the Wasem sand in the Seal Beach field was expected to yield at this stage of the game, the initial production having been 1500 barrels from 5440 feet. The hole was reconditioned with much better than usual results, disclosing a very favorable condition in a sand which was not looked upon with much favor. Action of this well means that the Wasem sand should yield a steady production on the pump for a long time. The oil is 23.5 gravity and shows a cut of only one per cent. In less than a year, the Seal Beach field has changed from the most active area in the state to one of the quietest. Production has settled to about 25,000 barrels, as compared with a peak of 80,000 barrels, the greater part of which is coming from the comparatively few wells in the conservative part of the field.

Associated Oil Company has reached 6120 feet in Voorhes 1, a very doubtful test in the Potrero field, and, barring unexpected mechanical troubles, will carry the well to much greater depths. Absence of showings is not considered as a favorable indication, but the company has much to gain and little to lose by continuing with the test. The company's Pacific-Southwest 1 continues in the doubtful class, showing little inclination to flow steadily. The well was drilled to 4777 feet and is being tested in the same sand that produced so satisfactorily in Cypress 2. The outcome of Cypress 3 will be watched with interest and should go a long way toward establishing the value of the main zone. It is coring ahead at 4005 feet, with the formation checking somewhat higher than in the other Cypress wells.

Much Sought Oil Zone Found In Two Wells at Elwood Field

LOS ANGELES.—Excitement over the proposed deep test of the Petroleum Securities Company in the Inglewood field has subsided, at least for the present. The company has announced that Cone 16 will be a test of the deep sands but it will not be drilled to increase production at this time. The rig has been completed and everything is in readiness for the test. Standard Oil Company's L. A. I. 58 will not be a deep test, according to the company, but will be drilled to comply with terms of the lease. Other operators in the field are watching the Petroleum Securities test with interest, but have no immediate plans for further drilling operations.

In the new Elwood field, Barnsdall and Rio Grande have found the much-sought oil zone in both Elwood Acres 1 and Luton-Bell 2. The formation was found at 4300 feet in the former and at 3225 feet in the latter. Elwood Acres 1 is an outpost test and the failure to find the sand around 4000 feet caused widespread comment. The disappointing showing of the well was accounted for by the belief that it was located even lower on the structure than originally thought. At 4070 feet, a string of 8¼-inch casing was run for a combination water shutoff and production test. After drilling out the cement, the well showed wet gas but no oil. Even if this well had been a failure, it did not mean that the field would not be a success, since it is located more than a mile from the discovery well. It would have meant, however, that the field would have been a comparatively small one, unless the structure later takes an unexpected trend. As one of many producing structures in Santa Barbara County, it does not give evidence of becoming as large a field as some of the southern California areas. In Luton-Bell 2, Rio Grande and Barnsdall seem to have a producing well. The sand was found about 50 feet lower than in the discovery well, a condition which was expected. A string of 8¼-inch casing has been cemented at 3220 feet, giving the well about 50 feet of sand for the initial test. Doty 1, also located only a short distance from the discovery well, has topped the oil sand at about 3175 feet, giving it the formation at about the same depth as in Luton-Bell 1. It will require the completion of at least four wells to determine the possible extent and trend of the field.

The few operators now drilling along the flanks of the structure apparently have not been discouraged by the poor showing of Elwood Acres 1. Knapp and Dunlap have reached a depth of 3369 feet in Elwood Acres 1, with the formation showing little promise. These independent operators did not expect production under 3500 feet. The Petroleum Securities Company (Doheny interests) is drilling at 2050 feet in Storke 1. It has not been possible to correlate the well with others drilled past the same depth. Petroleum Securities Company recently purchased 1000 acres of the Moore ranch for a cash consideration of about $350,000. The tract runs from a point near the Mescalitan Island to the old Hope Ranch, following closely along the coast line.

Fruitvale

After flowing at the rate of 2500 barrels for a few days, Pacific Eastern Production Company's No. 5B has been pinched in to 1500 barrels as a precaution, although this remarkable Fruitvale producer showed no signs of going to water. The well was one of the largest ever completed on the east side of the valley and completely changed the outlook of the Fruitvale field, which had not made an impressive showing with three small pumping wells. The field had been regarded as a pumping area and the unexpected yield of No. 5B caught the owners without sufficient storage to make a thorough test. The well is located on Section 22-29-27 and apparently is higher on the structure than formerly thought. It is about three-fourths of a mile from the discovery well, disclosing a flatter condition in the field than is commonly found in such an area. In completing the well, operators plugged back to 3925 feet, after drilling to 4210 feet. The possibilities of the field will necessarily be limited by the productive area of the sand, but there is every indication that the district will become a major fatcor in Kern County production. The oil is only 22 gravity, a fact which discourages extensive development at this time, but under more favorable conditions the crude would find a ready market for many purposes.

Pacific Eastern Production Company's KCL 1, the discovery well and one with an interesting history, is being placed on the pump at 4030 feet, after its failure at greater depths. Originally completed at 3850 feet with an initial production of 200 barrels, the company took the well off production and drilled it to 6190 feet. After leaving the main body of the upper zone, no important showings were found. By plugging back to 4030 feet, the bottom of the discovery sand will be tested. It was KCL 1 that disclosed a much thicker sand than early estimates indicated.

As an offset to A. L. Marsten's recent completion on Section 27-29-27, Pacific Eastern Production Company has started another well—No. B6—on Section 22-29-27. Like other outpost wells, this test should do much to define the producing limits of the field. Though the Marsten well is farther from original production than No. B6, the success of the latter would more firmly establish the trend indicated by the former. The Marsten well is not yet rated as a completion, even though it has produced at a commercial rate at irregular intervals for more than two weeks. Mechanical trouble has prevented a fair test, while excess sand has played an important hand in the well's poor showing. Starting out like a real flowing well, sand soon cut off the flow. The average production, during the days the well has produced, has been about 125 barrels. It has been regarded as a very important test, extending the field a full mile. Production was obtained between 3675 and 3800 feet, making the well as shallow as those drilled on Section 21-29-27.

Midway

With the completion of the Republic Petroleum Company's No. 31, Section 7-32-23, as a 1500-barrel well, the Midway district continues to share interest with other more critical areas of the state. The well was completed at 2925 feet and is the fourth completion in the deep sand discovered early in the year. Estimates on the production of the well had run as high as 5000 barrels, having been placed on the strength of the appearance of the cores taken at different depths. About 500 feet of sand was included, with the 8¼-inch oil string carrying 550 feet of perforated pipe. The well is regarded as a fair test, since the hole was washed and every precaution was taken to insure a representative producer. The company has placed No. 32, Section 8-32-23, on the pump after a hard struggle to make the well produce naturally from 3605 feet. The action of this well is a keen disappointment, giving it the distinction of being the only one of the four wells which did not at least flow in the beginning.

Union Oil Company has been unable to make a producer of Western Pacific 8, located on Section 27-32-23 and about three miles from the deep production developed by Republic and Chanslor-Canfield Midway Oil Company. The well was drilled to 2150 feet, and while there was no way of correlating the test with those on Sections 7 and 8, it was held possible that the same sand had been found. About 125 feet of formation was cut and the production test was made on the theory that nothing would be lost if commercial production was not found. Successful completion of this well would have extended the deep zone more than three miles and would have greatly increased the value of a large acreage. The liner has been pulled and additional hole will be made.

Kettleman Hills

The Kettleman Hills district has become very active from a leasing standpoint, following the excitement caused by the unexpected blowing out of the Milham Exploration Company's Elliott 1, which has been successfully shut in. Though the possibilities of the area are still unknown, several companies are preparing to enter the district. Leases several miles from the Milham well probably will be drilled on the theory that the structure is a very large one and that both oil and gas will be found for miles around. As usual, optimism undoubtedly has been carried too far. It is not yet possible to ascertain the actual production of the Milham gasser; and the theory that production may be had at any one of several

(Continued on Page 46)

PERSONAL MENTION-MEN YOU KNOW

Max W. Ball has resigned as president of the Argo Oil Company to engage in consulting practice as petroleum engineer, with offices in the First National Bank Building, Denver, and the Exchange National Bank Building, Tulsa.

Mr. Ball is a graduate of the Colorado School of Mines and of the National University Law School. From 1906 to 1916 he was with the United States Geological Survey, engaged on coal and oil work. From 1910 to 1916 he was chairman of the oil board, in charge of the classification of public lands as to their oil and gas value. In 1916 he was transferred from the Geological Survey to become law officer of the Bureau of Mines. In 1917 he left the government to take charge of Rocky Mountain activities for the Royal Dutch Shell group, and remained in this position for four years. In 1921 he left the Dutch Shell and organized the Western Pipe Line Company, which built the first common carrier pipe line out of the Salt Creek field in Wyoming. In the fall of 1922 he became president of the Marine Oil Company—Royalty and Producers—Glenrock-Wyokans group of companies, which with the Western States Oil and Land Company, were later consolidated into the Argo Oil Company, with holdings in Oklahoma, Wyoming, Montana, Colorado, Kansas, and Texas.

In addition to his business activities, Mr. Ball has been active in the national geologic and engineering societies, and in 1923-4 was president of the American Association of Petroleum Geologists.

Mr. Ball plans to give especial attention to geologic reports, appraisals, economic questions, production engineering, management, and reorganizations.

Harold C. Osman, secretary of The Nugent Steel Castings Company, Chicago, and heretofore in charge of sales for that company, has been appointed works manager.

Among the visitors at the International Petroleum Exposition in Tulsa last week were a number of Americans who are now stationed in foreign fields. J. W. Burford, manager of the Lobitas Oil Company, Lobitas Tolara, Peru, spent several days at the oil show as did L. W. Berry, manager of the Anglo Ecuadarian Oil Company, Ltd., of Quayaquil, Ecuador; George Brake, field manager, International Petroleum Company, Negritas Tolara, Peru; Dyson Phelps, geologist of the International Petroleum Company, also at Negritas Tolara, Peru.

Leslie Russell has been elected secretary and treasurer of the Oil Operators Trust, Inc., which maintains headquarters in the Petroleum Building, Fort Worth, following resignation of Frank Lawshe.

Paul L. Applin, chief geologist for Cosden & Company, has returned to headquarters at Fort Worth from a business trip in the East, including a side trip to New Hampshire.

R. E. Donovan, manager of the safety first department of the Standard Oil Company of California with headquarters at San Francisco, visited the Southern District headquarters of The California Company, a subsidiary, at Dallas last week preparatory to introducing safety work among the field forces of the latter concern in the West Texas district.

Chisholm Again Heads Conservation Bureau

Tulsa.—W. L. Chisholm of Shreveport, director, Minerals Division, Louisiana Department of Conservation, was re-elected president of the Petroleum Conservation Bureau at the second annual meeting held Wednesday, October 24, at the offices of the Conservation Branch of the United States Geological Survey, Tulsa. The Petroleum Conservation Bureau is made up of representatives from the various state and national government conservation agencies.

The meeting was addressed by Dr. George Otis Smith, director, U. S. G. S., he urging the members to exert their efforts toward cooperation between the state and national organizations and to promote cooperative work among the operators. A number of problems assigned various representatives of the bureau are to be submitted in report form by January 1, 1929.

A recommendation of the retiring executive committee choosing the International Petroleum Exposition at Tulsa as the place for the annual meeting was adopted at this meeting.

Eugene Hagan of Tulsa, conservation agent for the Oklahoma Corporation Commission, was appointed safety director of the bureau.

Other officers elected to serve during the coming year are as follows: W. J. Armstrong, Oklahoma City, chief oil and gas officer, Oklahoma Corporation Commission, vice president; H. J. Duncan, Muskogee, deputy supervisor, Conservation Branch, U. S. G. S., secretary-treasurer; and Hale B. Soyster, Muskogee, supervisor, Conservation Branch, U. S. G. S., and John L. Smith, Ponca City, conservation agent, Oklahoma Corporation Commission, were elected to the executive committee.

Harry H. Hill, chief petroleum engineer of the United States Bureau of Mines, resigned to become associated on October 15 with the Standard Oil Company of New Jersey as petrologist. Mr. Hill's connection with the government covers a period of 15 years. He started as a chemist at the Pittsburgh station of the Bureau of Mines, devoting his attention at that time to the analysis of coal. Shortly thereafter he took up chemical work in the petroleum laboratory at the Pittsburgh station. Subsequently he was superintendent of the Bartlesville, Oklahoma station of the Bureau for a number of years. His latest responsibility has been as chief of the petroleum section of the Washington office of the Bureau of Mines.

Shortly before leaving Washington, about 75 of Mr. Hill's associates tendered him a farewell dinner at the Hamilton Hotel, in Washington, his parting gift from his friends being a fine brief case. The toastmaster at the dinner was Charles E. Julhin, in charge of the common metals division of the Bureau of Mines. Those who responded to toasts were: Timothy A. Carroll, of the Federal Trade Commission, who referred particularly to the courtesy and accuracy with which Mr. Hill had furnished information on intricate questions before the commission; John H. Nelson, chief of the petroleum division of the Bureau of Foreign and Domestic Commerce; Dr. Charles E. Munroe, chief of the explosives division of the Bureau of Mines; and F. G. Tryon, in charge of the coal statistics office of the Bureau. The committee in charge was composed of J. D. Secrest, chief clerk of the Bureau of Mines; Mrs. Barbara Van Pelt, secretary to Mr. Hill; Mrs. Mary H. Kolhos; Miss Esther I. Susan, auditor and accountant at the Bureau. In the absence of the director of the Bureau, J. H. Hodges, assistant to the director, attended and made a few felicitous remarks, as did also C. P. White, chief of the economics branch of the Bureau. Mr. Hill also was recently feted at the offices of the Bureau of Mines in Bartlesville, Oklahoma, and Dallas, Texas.

John D. Clark, formerly president of the Midwest Refining Company, visited in Casper for a few days this week before returning to his home in Baltimore. Mr. and Mrs. Clark were called to Cheyenne this month by the illness and death of the latter's sister, Mrs. Anna B. Haggard.

Beaumont Parks, vice president of the Standard Oil Company of Indiana, is on a tour of inspection of the company's plants in the Rocky Mountain region. Mrs. Parks is accompanying him.

Two Champagnolle Completions On Northwest and Northeast

SHREVEPORT, La.—The completion of two wells in the Champagnolle area, one in the extreme northeast side and the other in the northwest edge of the field, constituted the chief points of interest during the past week in the North Louisiana - South Arkansas - East Texas territory.

The new well on the northeast is Lion Oil Refining Company's Nash 4 in the southwest of the northeast of the southwest of Section 6-17-13. It came in as a good flowing well from the Crain sand around 3018 feet, but no accurate gauge of its production has been obtained as this is written. In this area there are now 13 operations.

The new producer on the northwest edge of the field is the Oil Well Corporation's Kelly A-1 in 9-17-14, which came in at 2790 feet making 40,000,000 cubic feet of dry gas.

Champagnolle Quiet

Aside from these two wells, the activity in the Champagnolle field during the week was slight. Several of the operations on the northeast end of the field are nearing the pay and should be completed within a short time. A small well in 1-17-14 in that portion of the field was completed during the week by Magnolia Petroleum Company in its Carroll 5, which is pumping 30 barrels from 3018 feet.

On the south edge of the field O. W. Estes tested dry in Rowland 5 in 14-17-14 and abandoned the test at 3302 feet. Skelly Oil Company deepened its J. M. Gregory 1 in 15-17-14 to 2835 feet and completed it as a 8½-barrel pumper. On the southeast corner of the Champagnolle field W. F. Simrall and associates hit salt water in Finley 1 in 12-17-14 at 3251 feet after the well had been deepened.

Sun Well Dry

On the western edge of the field the Sun Company which completed two wells making oil and salt water on the Schmidt lease in numbers 1 and 2, tested dry in the third well at total depth of 3300 feet. All the tests are in 16-17-14. Root Refineries hit salt water in E. F. Gregory 2 in 10-17-14 at 2744 feet and abandoned the test. In Nevada County, Arkansas, Humble Oil & Refining Company added another producer, its Groves A-5 in 1-14-21, making 50 barrels at 1117 feet.

A representative of the du Pont interests has had 3000 acres of the McRae estate near Mount Holly, Arkansas, placed in escrow. The acreage lies in township 16, range 18, Union County. It is located about equidistant from Camden, El Dorado and Magnolia. Three tests below 3000 feet, if pay is not found higher, are contemplated if the lease is consummated.

Five gassers and failures was North Louisiana's contribution for the last week. East Texas did not enter the completions list. In the Wistar gas field of Bossier Parish, Arkansas Natural Gas Company added Van Hoose A-7 in 31-16-11 at 2445 feet as a 12½ million foot gasser and the Palmer Corporation's Caplis 11 in 26-16-12 was also a small gasser gauging three million feet at 1888 feet. R. O. Roy's Caplis 1 in 25-16-12 was junked at 800 feet.

In Grant Parish an attempt to extend the Little Creek oil producing field south ended in disaster when Beville and Bailey hit salt water in Swope 3 in 17-9-1e at 1598 feet.

A 58-million foot gasser was added in the Richland Parish gas area by the Magnolia Petroleum Company in its J. Sartor 1 in 16-16-6e, with total depth of 2445 feet. Morehouse Parish also accounted for a gas well, Southern Carbon Company's Tensas Delta 6 in 10-20-4e, bring good for 25 million feet at total depth of 2152 feet. In Ouachita Parish, Magnolia Petroleum Company's Millsaps 2 in 36-20-4e, was completed at 2180 feet as a twenty million foot gasser.

Wildcats Failures

Two interesting wildcats, both in Arkansas, were completed as failures during the week. E. M. Jones' Stegall B-2 in 10-18-14, Union County, which had encountered 13 feet of sand and was reported standing with 1000 feet of fluid in the hole 60 per cent. of which was estimated to be oil, refused to flow when cleaned with cable tools and was abandoned. The total depth was 2265 feet. Joe Marr and associates' Sloan 1 in 14-17-15, Union County, was also a salt water hole and was abandoned at total depth of 3392 feet. It was the second completion of the test.

Altogether the week's total in the tri-state area aside from the Lion's Nash 4 which is not yet an official completion, was three producers with combined initial of 88½ barrels, six gassers, and eight failures. The preceding week had accounted for two producers with a combined initial of 250 barrels, six gassers and six failures.

Thirteen new locations were announced during the week; five of them for Champagnolle and all located on the northeast end of the field. Six of the locations were in Louisiana.

In the northeast part of Champagnolle J. P. Hawkins and associates will drill Goodwin 1 in NW SW 6-17-13. In the same quarter C. E. Murdock and associates have location for Union Sawmill Company 2 while in the SW of SW of the same section Ohio Oil Company is preparing to drill C. L. Frazier 1. The same company has location in SE SW of the same section for C. B. Nash 3, Account 1. Further south Magna Production Company has made location for El Dorado Realty 1 in NE SE of 7-17-13.

In Ouachita County J. E. Crosbie has made location for C. Primm 1 in 23-15-16 and Humble Oil & Refining Company has made location for another test in 1-14-21 of Nevada County. This will be Hein 2 in the northwest of the northwest of the section.

In the Curry Junction district of Webster Parish, Louisiana, Magnolia Petroleum Company has made location for N. Scroggins 1 in 1-22-11 while in Caddo Parish, Woodley Petroleum Company is rigging up for Whitehurst 2 in 8-16-12. In the Monroe gas field, Ouachita Parish side, Stovall Drilling Company has location for Etheridge 1 in 22-20-4e while in 26-20-4e, United Oil & Gas Products Company has just spudded in on Stevens 1.

In the Lucknow district of the Richland gas field Richland Operating Company has made location and is rigging up for Traylor 1 in 24-16-6e. In the Urania district of LaSalle Parish, Ayers Brothers have erected a derrick to drill Tremont 6 in 30-10-2e.

There was little of interest in wildcats now under way in Arkansas. Imperial Oil and Gas Company tested salt water from 2580 to 2582 feet during the week in Goodwin 1 in 26-17-16, a Union County, Arkansas, wildcat, and arrangements are being made to run a testing tool from 2583 to 2586 feet in the hole. Tharpe Drilling Company's List 1 in 25-17-15, a wildcat in Union County, has the drill stem stuck in the hole at 3050 feet. In Ashley County, Arkansas, Atlantic Oil Producing Company tested salt water through the drill stem from 3250 to 3278 feet and is now repairing rig at total depth of 3291 feet in what is believed to be a salt water sand.

Line Completed

In Union Parish where the Lion Oil Refining Company recently completed a small pipe line for potential production in that area and to pick up about 1500 barrels of crude in storage, laying the line to Strong, Arkansas, a distance of nine miles, Carter and Wingfield continue activity. They tested dry at 2195 feet in Security Trust 3 in 23-23-1w, but are drilling ahead in the hole at 2205 feet. Hudson 2 in 7-23-1e is shut down waiting fuel at 2190 feet but Clark A-2 in 7-23-1e is drilling at 2285 feet and A-3 on the same lease in 8-23-1e is drilling at 700 feet. Derrick is up for Security Trust 2 in 7-23-1e and location has been made some time for Clark A-1 in 7-23-1e.

Rotary Drilling Problems

By R. S. CARTWRIGHT
L. W. Prunty Drilling Company

Paper read before the Petroleum Division of the American Institute of Mining and Metallurgical Engineers, Tula, October 18-19, 1928. *Copyright, 1928, by A. I. M. M. E., Inc.*

TWO types of automatic drilling controls, the Halliburton and the Hild, are now available and are coming into more or less general use in deep drilling. The primary function of both is to maintain a safe limit of torque on the drill pipe, this being accomplished by automatically controlling the weights or pressure on the cutting tool. Neither type will necessarily increase drilling speed, but by permitting advantage to be taken of "breaks" in the hole higher average cutting speed may be maintained. The control is essentially a safety device, and should be considered as such.

It is not the purpose of this paper to discuss the merits of drilling controls, although the advantages over manual feed at the brake drum are obvious, but rather to point out some of the limitations.

THE HALLIBURTON CONTROL

The Halliburton control is designed to operate during drilling through the agency of the draw works. Automatic and constant control of the torque on the bit is governed by clutches on the control itself, and the line shaft to drum shaft drives on the draw works. In operations other than drilling the control is simply a jackshaft between prime mover and draw works. It is, of course, adaptable to any type of power.

Because control of the torque on the bit is dependent upon the various ratios or clutch combinations available on the Halliburton control and the draw works, it follows that there are certain limitations in points of control. Table 1 shows the possible ratios which can be obtained with the control and a popular type of three-speed draw works, it being assumed that the highest possible gear combination—the combination which when engaged will suspend the least amount of weight—has a value of 1.00.

According to the table there are "blind spots" in the series. This is true particularly among the lowest ratios, which are most used to suspend the major part of the weight when great depths are reached. It will be noted that there is a difference of nearly three units in the value of the two lowest ratios. Low on the control and second on the draw works, with a value of 4.64, will ordinarily be used with six-inch drill pipe when drilling between 3500 and 4000 feet. When the latter depth is reached this ratio will no longer suspend sufficient weight and it is necessary to employ low on the control and low on the draw works. This will, however, suspend approximately one and two-thirds as much weight as the 4.64 ratio, which, under ordinary circumstances, may not permit sufficient pressure to bear on the bit. The same condition occurs with the other ratios, but not to so pronounced a degree. The significant point is that at extreme depths, where accurate and sensitive control is most desirable, it is least available.

Table 1.—Ratios Obtainable with Halliburton Control and and Three-Speed Draw Works

Halliburton Control Speed	Draw Works Speed	Ratio
High	High	1.00
High	Second	1.88
High	Low	3.09
Low	High	2.48
Low	Second	4.64
Low	Low	7.58

This condition has made it necessary, in order to obtain proper pressure on the bit, to use the brake drum on the draw works as an auxiliary to the control at depths where the "blind spots" occur. To obtain the full value of the control as a governing unit by this practice is not desirable, as it constitutes a partial reversion to the old type of manual feed, with its disadvantages. When the brake must be employed to aid the control in suspending a part of the weight of the drill pipe, it also acts as a brake against the action of the control in hoisting the drill pipe, providing the torque required to turn the bit builds up to a point greater than the power required to lift the pipe and free it for rotation. The net result is that a portion of the effectiveness of the control is destroyed, due to the existing limitations in its gearing to the draw works.

The remedy for this condition appears to be an increase in the number of speeds, or line shaft to drum shaft drives, on the draw works. Four-speed draw works are now available, but the general tendency in new design is to increase the high speed ratios rather than to provide more low speed modifications, which are now the most needed for use with the Halliburton control. Necessary limitations in the size of the draw works will probably not permit of the addition of more than one speed to existing types, and it is suggested that a double line shaft design may be found desirable.

THE HILD DRIVE

The Hild differential drive is designed only for electric power, and hence its operation is confined to those fields where electric power is available. In the Mid-Continent fields, this limits its use to a relatively small part of the total oil producing area. Another objection is the fact that gear-driven slush pumps for electric drive are required for operation with the Hild unit and have not been available in sufficiently large sizes to satisfy the requirements for deep drilling. They are, however, now being built.

In the Hild, a large number of points of weight control are available, making it accurate in maintaining a constant torque on the drill pipe, without the necessity of auxiliary manual feed. No change in existing draw works design, unless it would be for the purpose of accelerating pulling out of the hole, is required for its operation.

ELIMINATION OF DRILLING CONTROLS NOT JUSTIFIED

It has been suggested that weight indicators can take the place of drilling controls, and, in fact, will eliminate them from use. The idea is that the driller, by using a weight indicator, can, with manual feed, maintain a fairly constant pressure on the bit and a constant torque on the drill pipe, thus performing the functions of the control. The writer cannot subscribe to this theory and sees no justification for the elimination of drilling controls. It is true that by closely watching a weight indicator a practically constant pressure can be held on the cutting tool, but it does not necessarily follow that a constant torque, within the safe limits of torsional strength, will be maintained on the drill pipe. In different formations there is a considerable difference in the torque required to turn the bit, even assuming exactly the same amount of weight on it, and it is quite within the bounds of possibility that cavings from the hole, particularly a boulder or some such mass, might seriously impede the rotation of the bit, without the addition of a pound of pressure. In such an event, with the control, once the safe limit of power applied to the rotary machine is reached, the drill pipe will be automatically hoisted until the bit is freed, whereas with the manual control upon which the driller must depend

when using only a weight indicator, it would be entirely possible to build up sufficient power to twist off the drill pipe. Furthermore, the control, through its automatic action helps to eliminate the human element in drilling, whereas with only a weight indicator the operator must depend upon a driller and his judgment, which may not at all times be infallible. As was previously stated, the drilling control is a safety device which the weight indicator in no wise replaces.

MUD-LADEN FLUID

The primary purposes of mud-laden fluid, or mud as it is commonly termed, in its application to rotary drilling, are, first, to carry the cuttings from the hole, permitting them to settle out in the circulating pits, and, second, to wall up the hole, once it is drilled, and seal off minor oil, gas or water sands. It serves a further incidental purpose in acting as a cooling medium on the cutting tool, and to a limited extent as a lubricant in the hole. To accomplish these ends effectively it must be of approximately the correct density and viscosity, and must have the property of penetrating sands encountered. It must also permit of easy circulation by the slush pumps.

The average rotary operator does not give much serious consideration to the condition of his mud. Generally it is either good or bad according to the individual driller's opinion and experience. Differences of as much as three pounds per gallon of mud in use on wells drilling in the same field, under practically identical conditions, have been observed. On one well a difference of as much as 1½ pounds per gallon during a single period of 12 hours has been observed. It is not illogical to assume that certain standards could be worked out for the usual drilling conditions, and that greater drilling efficiency would result if the correct type of mud were maintained, rather than to depend on the hit-or-miss methods sometimes followed.

Mud is a colloidal suspension of finely divided clay in water, the clay being derived from the formations encountered in the hole and the mixture resulting from the cutting and churning action of the cutting tool with water flowing at high velocity from the slush pumps. When drilling in a clay-bearing formation there is a tendency to "make" mud—to form a heavier colloid—while in other formations, particularly sand, there is the opposite tendency that is, for the mud to thin. Normally, there is an excess of mud-forming material drilled, such excess clay setting out in the circulating system, and making it possible, by mixing or thinning with water, to maintain a fluid of fairly identical characteristics.

TEST FOR MUD

As a quick and effective method of testing various samples of mud the writer employs an ordinary centrifugal oil-testing machine. When rotated at a high velocity for a known time the samples separate into their constituent materials, and by using graduated tubes it is readily possible to determine the exact amounts of cuttings, free water, etc., in each. Table 2 shows the results of such a test on four typical muds, taken from four different deep wells in the Mid-Continent district.

The several samples differ greatly, although the four wells from which they were taken were drilling under about the same conditions, and the muds were considered suitable by each operator.

Table 2.—Analyses of Four Typical Muds Used in Mid-Continent Wells

Sample No.	Free Water Per cent.	Clay Residue Per cent.	Cuttings Per cent.	Wt. per Gallon lbs.
1	2.1	20.7	0.30	9.90
2	1.4	23.0	14.0	9.75
3		26.8	17.8	10.60
4	0.9	20.6	14.2	9.90

It is obvious that the amount of free water should be maintained at a minimum, and that an excess indicates an unstable colloid. The clay residue is largely dependent on the weight of the mud per gallon and varies with it, but should, if the proper weight is maintained, be kept at the lowest possible point. With it, as with free water, the amount deposited is in direct ratio to the stability of the colloid. Cuttings, by which is meant foreign non-mud-forming constituents such as sand and shale, should also be limited as much as possible. Not only do they cause excessive wear in the slush pumps, but in the event of failure in the circulating system they are liable to settle around the bit, preventing either rotation or hoisting.

The most practical test for every day purposes is a careful check of the weight per gallon. If the operator will do this, he will find it easy to maintain whatever standard his experiments prove most desirable. For all general purposes the writer has found that a mud weighing about 10 pounds per gallon is best. In such a mud the free water should not exceed two per cent., the clay residue 19 per cent., and the cuttings one per cent.

EFFECT OF HEAVY MUD

A mud which is too heavy builds up on the walls of the hole and hinders getting back onto bottom after having pulled out. The depositing action on the walls is particularly noticeable in sand formations, and while it is desirable that a sand should be sealed off, mud much heavier than 10 pounds per gallon has a tendency to so reduce the diameter of the hole that it is difficult to get a full gage cutting tool through, thus delaying drilling operations and often requiring some time for reaming the hole back to full gage. If the colloid is especially stable, it is, of course, possible to use a heavier mud without much settling, but such is not usually the case, and it has been the writer's observation that where mud as heavy as 11 pounds per gallon has been regularly used, considerable time has been required to get back on bottom after a trip out of the hole.

Mud much below the standard of weight favored by the writer, is not sufficiently heavy to carry the cuttings from the hole, thus impeding the progress of drilling. Nor will it properly wall up the hole, making it liable to caving, with consequent loss of drilling speed and danger of sticking.

REMOVAL OF CUTTINGS

The most effective method which I have found for settling out cuttings is the use of a long ditch or conductor, through which the mud must pass as it is discharged from the hole. It has also been found that passing it through a settling pit, where it is forced to spread out over a wide area, is also effective for this purpose and leaves the circulating pits free of foreign matter. If the weight of the mud will not be too seriously reduced it is also advisable to inject a small stream of water into it as it is discharged from the hole, in order to facilitate removal of the cuttings.

There is a general opinion among some drillers that the deeper a well is drilled the heavier the mud should be. This theory cannot be sound, for mud performs the same functions at 5000 feet that it does at 2000 feet, and any increase in weight will result in the conditions already referred to. This is assuming, of course, that heavy gas pressures will not be encountered. If such is the case the mud must be as heavy as it is practical to handle, or rather sufficient to maintain the hydrostatic pressure at the bottom of the hole to more than equal the sand pressure.

It is common practice with some operators, after reaching considerable depths to use some crude or fuel oil in the mud, their purpose being to provide a lubricant and a solvent for shale cuttings which might settle around the cutting tool if circulation were suspended. The writer has found that the addition of oil for this purpose is not desirable, as its actual effect is to coat the finely divided cuttings, as in the flotation method of ore separation, making it almost impossible to get them to settle out. There is the further objection that a mud mixed with oil is difficult to handle in the slush pumps, as it has a solvent action on the balata valve disks commonly used in mud pumps. He suggests that the concentration of oil be not permitted to reach more than two per cent, by volume.

If the cutting tool is stuck, and can neither be hoisted nor rotated due to cuttings settled around it, it is often possible to free it by circulating oil. On the few occasions that it has been possible for the writer to check the concentration of oil required for this purpose, it has been found that not more than 25 per cent. by volume is necessary, although in

extreme cases pure oil and not an emulsion with mud is required.

USE OF CLAY SUBSTITUTES

When there is no reserve supply it is necessary to use some substitute for clay in mixing mud. Ordinarily, cement, lime or plaster, which are easily procured, is used. They are not very satisfactory because, in spite of thorough mixing, they rapidly settle out. Barium sulfate and iron oxide form true colloids, and either, if available, is much to be preferred as a mud-making substitute. For adding weight to mud, iron oxide is particularly desirable as it can be readily used to make a mud weighing from 15 to 16 pounds per gallon. When the addition of such material is necessary, it is common practice simply to dump it in the circulating pits. By using a small tank conveniently located on the derrick floor, and connecting it directly to the slush pump suction pipe one can obtain exactly the mixture desired without sustaining any loss into circulation.

MUD FOR DEEP DRILLING

Due to the limitations of existing equipment, it has not been possible to make extensive experiments with reference to the proper volume of mud for deep drilling. The writer has found, however, that a volume of from 400 to 450 gallons per minute with a pressure of about 500 pounds per square inch is desirable for a hole of 11 to 12 inches diameter. For maximum drilling speed the bit must be kept clean by washing, and all cuttings washed from the hole ahead of it. In hard formations, where drilling speed is reduced, it is entirely possible and desirable in order to save fuel to reduce the volume, but it may be generally concluded that up to a volume of 450 gallons per minute cutting speed per unit of time is in direct ratio to fluid volume. For holes smaller than 11 and 12 inches in diameter it is probable that the volume should be calculated on the basis of the area of the hole for maximum efficiency. It is considered entirely possible, in a small diameter hole, to "wash" the hole, that is, to circulate a sufficient quantity of fluid under high pressure, particularly in soft formations, to cause side wall caving, and it is suggested that this point must be kept in mind in all volume calculations.

A check of the fluid efficiency of slush pumps might prove interesting to many operators. Only by exercising considerable care has it been possible to maintain an efficiency of 70 per cent., which is probably considerably higher than the general field average. If the recommended volume of at least 400 gallons per minute is to be maintained most of the slush pumps now in use must operate at not less than 65 per cent. efficiency. It will undoubtedly be found that efforts toward that end will be amply repaid in increased cutting speed.

In this connection, it may be mentioned that the development of large power-driven slush pumps is highly desirable. A number of manufacturers are now working on this problem, but it is certain that if other forms of power than steam are to be applied to rotary operation larger and heavier pumps for power drive than have hitherto been available must be supplied to meet the competition of steam equipment.

DISTRIBUTION OF TIME IN ROTARY DRILLING

It is obvious that the time factor is of primary importance in rotary as well as other methods of drilling. Tools can be made to pay a reasonable profit only by making reasonably good time in completing a well. From the standpoint of fuel and water consumption increased drilling speed also means decreased drilling costs. Moreover, in a highly productive area where flush production is important, a higher rate of drilling speed means much quicker and greater returns. It is a well-known fact that at times bonuses of considerable magnitude have been paid in an effort to stimulate drilling operations.

A study of the distribution of time spent on rotary drilling wells was therefore undertaken, with the idea of increasing general efficiency by increasing the amount of effective drilling time and decreasing the amount of lost or ineffective time. No two wells ever drill exactly alike, and, due to the great differences in other factors governing speed of drilling, it does not necessarily follow that one with an average of 75 per cent. effective time will make more footage than another with an average of 60 per cent. effective time. It is believed, however, that the effective time to the total time ratio will serve as a fairly accurate index to drilling speed. There can be no argument on the point that hole can be drilled only by "setting it on the bottom and turning it to the right."

A STUDY OF FOUR OKLAHOMA WELLS

The figures which follow are based on a study of four deep wells, drilled within the past year, in north central Oklahoma, the first being an 11-inch hole drilled to 4455 feet, the second an 11¾-inch hole drilled to 4100 feet, the third a 12-inch hole drilled to 4200 feet, and the last a 11-inch hole drilled to 4100 feet. Three of these wells were drilled in the fall and winter of 1927, when weather conimmediate vicinity of producing wells, while two should ditions were not entirely favorable. Two were drilled in the be considered as wildcats. All were Wilcox sand wells, with an eventual depth in excess of 5000 feet. The equipment was of late design, and may be considered as representative of the best rotary machinery now available. All were powered with steam. As a whole, the four wells probably represent a fair cross-section of the most difficult drilling conditions now encountered in the Mid-Continent fields.

It should be noted that time spent in rigging up preparatory to starting a well, and time lost while waiting for cement to set around casing is not taken into consideration. No allowance is made, either, for time lost in fishing or establishing lost circulation, nor for shutdowns arising from fuel or water shortage. The time covered is only such as would normally be required for rotary operation, all conditions being favorable.

Fig. 1 shows the average effective drilling time for the four wells. The curve as a whole shows a steady decline from approximately 80 per cent. to approximately 57 per cent. From the surface to 2000 ft., drilling time averaged 81 per cent. of the total elapsed time, with lost time amounting to 19 per cent. Between 2000 and 3000 feet drilling time fell off to about 76 per cent., and lost time rose to 24 per cent. From 3000 to 4000 feet drilling time declined to 70.5 per cent., and lost time increased to 29.5 per cent., while between 4000 and 4500 feet drilling time dropped to 57.2 per cent., and lost time rose to 42.8 per cent.

For the purpose of comparison, Fig. 1 contains a line showing the highest average of effective time maintained

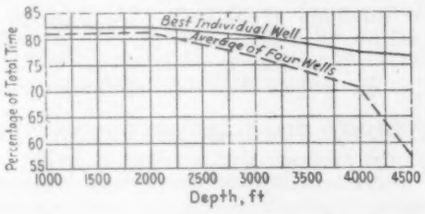


FIGURE 1.
Effective Drilling Time at Various Depths on Four Rotary Wells

on any one of the four wells considered. It will be noted that at every point in the hole, the curve shows a decided betterment over the general average, amounting at the extreme depth of 4500 feet, practically to a 20 per cent. difference, which indicates that it is quite possible to improve on the record of what may be termed good rotary practice.

A reduction in drilling time due to increasing depths is to be expected. The significant fact, however, appears to be that from 4000 feet down the decline becomes abrupt. This presents a serious problem to the operator, inasmuch as a considerable proportion of the wells now being drilled in the Mid-Continent fields have eventual depths in excess of 4000 feet.

INCREASING EFFECTIVE TIME

The only method of increasing effective time is to decrease lost time. This was analyzed with reference to the

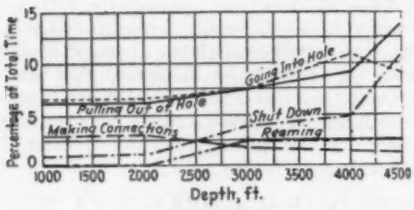


FIGURE 2.
Lost Time Rotary Drilling.

various operations incidental to rotary drilling Figure 2. Time for going into the hole is that required to lower the bit and pipe into the hole preparatory to drilling. Time for pulling out of the hole is that required for withdrawing the bit and pipe from the hole, either for the purpose of putting on a fresh bit or for making any repairs or changes that necessitate the suspension of drilling. Time for making connections is that required for adding pipe to the string in the hole, in order to continue drilling. Time for reaming is that required to bring the hole already drilled out to the full gage of a fresh bit, or to get on bottom due to presence of cavings in the hole. All other lost time, such as that required for making mechanical adjustments, repairs, etc., is included in shutdown time.

Figure 2 shows, in general, a steady increase in the time required for the various operations. The time for going into the hole increases steadily between the surface and 4000 feet, but from that point down it decreases, probably because at extreme depths fewer bit changes per unit of time are normally made than at shallower depths, a rock bit being used exclusively with no short runs of a disk or fishtail bit. The time for pulling out of the hole increases steadily, following closely the time for going into the hole up to 4000 feet, at which point it has a sharp increase that more than compensates for the decrease in the time for going in. This is probably due to the greatly increased weight of the string of drill pipe below 4000 feet requiring more careful and slower handling, especially if additional lines are strung in the traveling block.

The time for making connections shows a steady decline from the top of the hole to the bottom, an exception in this respect. This is to be expected, however, for normally the deeper a well is drilled the less footage per unit of time is made, and hence the fewer additions of pipe are required. Time for reaming shows a slight increase up to 3000 feet, but from there on down is constant. It is subject to the condition of the cutting tool, the formation drilled, and the condition of the hole. The time for shutdown has a normal rise of 4000 feet. From that point down it has an abrupt rise, the increase in percentage of total time being greater than for any of the other operations considered.

SHUTDOWN TIME AN IMPORTANT ITEM

It is not the purpose of this paper to go into ways and means of increasing effective time but it is suggested that Figure 2 shows quite clearly that the item of shutdown time is the one which should first receive consideration. The very considerable increase in this item for wells below 4000 feet also indicates that if wells are to be drilled successfully at constantly increasing depths, shutdown time must at least be held to a minimum.

Because of the lack of data it is impossible to make a comprehensive comparison between California practice and the figures presented in this paper. One well drilled on the West Coast to an approximate depth of 3800 feet showed an average drilling time of only 37 per cent., but one well cannot, of course, be assumed as a criterion of California practice.

Daily time records of all drilling wells may be kept. With such a record it is readily possible for the individual operator to know how every hour of the 24 is spent, and to work out his own standards.

RELATION OF WEIGHT ON ROCK BIT TO CUTTING SPEED

There are three factors which limit the permissible weight on the rock bits during the course of drilling formations usually encountered in the Mid-Continent fields. First, there is the fact that the rock bit cone bushings or bearings will not, under rotation at depths below 2000 feet support more than a part of the total weight of the string of drill pipe without excessive wear or crushing and consequent ruin of the cones or cutters. It is of course possible to operate the rock bit in two distinct ways, as is true of any cutting tool. The weight may be held off the bit and a high speed of rotation maintained, or more weight may be set on the bit and the speed of rotation decreased. Both methods have advocates, but experience has shown that generally more footage, at about the same cutting speed, can be secured by following the latter course. This method is to give the bit a considerable amount of weight and rotate it at a speed not to exceed 40 r.p.m. for 11-inch and larger size holes and 30 r.p.m. for eight-inch and smaller sizes. It is often possible to increase the rate of cutting speed by giving the bit a considerable amount of weight, and rotating it up to 60 or 70 r.p.m. This, however, usually results in excessive cone bushing wear and requires more trips out of and back into the hole, to put on fresh bits. Additional time so spent is lost and, when cutting speed is balanced against total time, the resultant average footage per hour is no higher than it would have been had the speed of rotation been low, but there results a longer period of drilling per set of cutters, and a lower drilling cost per foot.

TORSIONAL STRENGTH OF DRILL PIPE

A second factor which must influence the amount of weight used in drilling is the drill pipe itself. It is obvious that the torsional stress to which the pipe is subjected must increase with the amount of weight on the bit. It is true, also, that the rate of increase is by no means as high with a rock bit as with a drag bit of the fishtail type. The writer does not know of any work that has been done along this particular line, and it would be almost impossible to formulate theories for general application, since no two holes are identical and there is a wide range of difference in side-wall frictional resistance. However, I have observed that when the amount of weight on the bit goes over a maximum of approximately 41,000 pounds, there is a tendency for six-inch drill pipe to bend and kink, particularly at the bottom or rock-bit joint, which would indicate that the limit of safe operation with reference to the torsional strength of the drill pipe was being approached.

ANGLE OF THE HOLE

The third factor limiting the amount of weight on the rock bit is the maintenance of a uniformly straight or plumb hole. It is obvious that as more weight is put on the cutting tool, the greater the tendency is for it to slide with or follow along any formation which is inclined from the horizontal with reference to the surface. As a general rule the slope of formation is not sufficiently abrupt in the Mid-Continent fields to affect greatly the angle of the hole, but there are exceptions to this which have resulted in serious losses. Considerable trouble has recently been encountered, on this account, in the deep wells drilling in the vicinity of Marshall, Oklahoma, the difficulty apparently centering in a formation at 900 feet. When such a condition does exist too much weight on the bit will become a serious factor in aggravating the tendency of the bit to go off center.

WEIGHTS ON BITS

Manufacturers of rock bits make certain recommendations as to the amount of weight which it is advisable to carry on their bits. In an 11-inch hole with six-inch drill pipe the Hughes Tool Company advises 11,000 pounds for medium sand, 14,300 pounds for hard lime and 17,600 pounds for granite or basalt. For identical conditions the Reed Roller Bit Company recommends 7000 pounds for sticky shale, 10,000 pounds for sand, 13,300 pounds for hard lime and 16,500 pounds for granite or basalt. It has been the writer's observation, however, that these weights are greatly exceeded in actual practice, and, in fact, the recommended weight represents only a fractional part of the weight

required to secure anything approaching a good average cutting speed.

Table 3.—Cutting Speed of Bit for Different Weights on Bit

Wt. on Bit, Lb.	Lime Ft. per Hr.	Sand Ft. per Hr.	Sandy Lime Ft. per Hr.	Shale Ft. per Hr.	Sticky Shale Ft. per Hr.
23,000	1.9			2.94	2.47
26,000	2.5			2.95	3.23
29,000	3.4	3.04		2.97	2.80
32,000	3.78	5.24		3,72	2,38
35,000	3.9	4.76	4.19	4.19	3.7
38,000	3.0	4.14	3.85	4.13	4.44
41,000	4.1	4.05	4.99	3.94	3.5

In an effort to determine the advisable weight for drilling an 11-inch hole with six-inch drill pipe in the various formations commonly encountered in the Mid-Continent field, the writer has from actual records plotted cutting speed against the weight on the bit. Table 3 shows the results of these calculations, giving the cutting speed of the bit in feet per hour for every variation of weight from 23,000 to 41,000 pounds, in the five formations which are ordinarily logged. Figure 3 gives the same information in graphic form. In considering the figures presented, it should be borne in mind that cutting speed as shown is calculated only for actual drilling time. No effort was made to allow for lost time due to the wide variations to which it is subject, and to the fact that these figures are only for formations between approximately 2000 and 4000 feet. Cutting speeds above 2000 feet are considerably higher than the averages shown here, due to the greater degree of softness of the formations, to the fact that up to that point a very considerable part of the hole may be made with either fishtail or disk bits. There is not yet available sufficient information to make a profitable study of the weight factor at depths below 4000 feet.

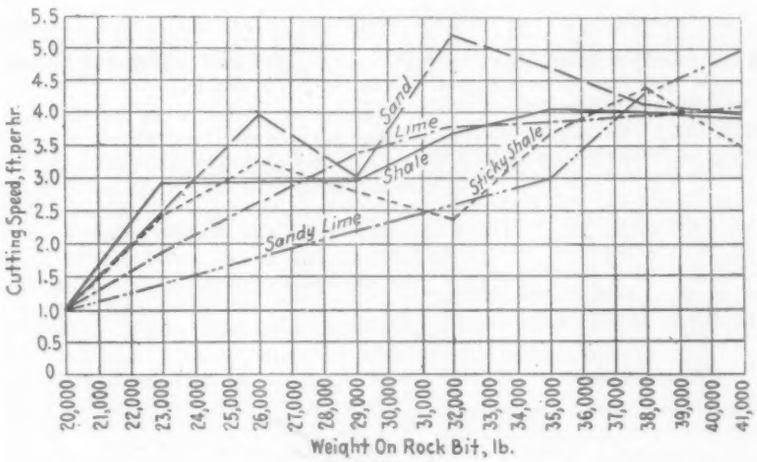


FIGURE 3.

Cutting Speed rotary drilling with varying weight on rock bit.

Table 3 shows clearly that, as a general rule, there is a steady increase in cutting speed proportional to the increase in weight employed. The average for 23,000 pounds is approximately 2.44 feet per hour, whereas at 41,000 pounds the average is not nearly 4.12 feet per hour, which would appear to indicate that the latter weight, which is generally found not to be excessive for safe operation, is productive of a considerable increase in drilling speed. In general it might be concluded that between approximately 20,000 and 40,000 pounds rock bit cutting speed per hour under normal conditions is about one foot for every 10,000 pounds weight on the bit.

Further examination of Figure 3 shows, however, that about 38,000 pounds is the most effective weight. At this figure the highest footage per hour is approached for each of the five formations considered, and beyond that weight the curves tend either to flatten out or to show an actual decline. Because the stress on cone bushings or bearings is less at 38,000 pounds than at 41,000 pounds and as high a cutting speed can be maintained at the former figure, it would appear that 38,000 pounds offers the best general average.

A study of the individual curves as they appear shows a steady increase in cutting speed for lime, with only a slight rise, however, beyond 32,000 pounds. The curve for sand is the least regular of any. It shows a sharp decline between 26,000 and 29,000 pounds and an even more abrupt rise between 29,000 and 32,000 pounds. From that point on the decline is relatively constant. The writer is not prepared to offer any explanation of this apparently erratic behavior, but is inclined to believe that it arises from differences in the cementation of various bodies of sand, and the resultant ease with which they chip or break under the impact of the rock bit teeth. The curve for sandy lime shows a normal increase up to 35,000 pounds, at which point the rise is accentuated, continuing to 41,000 pounds. The shale curve shows a relatively slow rise up to 24,000 pounds, rises normally to 35,000 pounds, and then flattens out with a slight fall to 41,000 pounds, while the curve for sticky shale behaves somewhat as does the curve for sand, exhibiting a normal rise only between 32,000 and 38,000 pounds. It was found that a very low rotational speed with comparatively light mud was most effective for drilling in this particular formation.

The figures given are not conclusive as a much larger number of wells would have to be taken into consideration before making any definite conclusions, but they do indicate that considerably more weight than is recommended by manufacturers is desirable for rock bit operation, and that there is a definite relation between cutting speed and the amount of weight on the bit.

CORRECT WEIGHT FOR DISK BIT OPERATION

A close check of the weights for disk bit operation has not been made, but casual observation indicates that the correct weight is in the neighborhood of 20,000 pounds. There is little or no opportunity in the Mid-Continent field to make a study of fishtail bit operation, but some authorities in California, where this type of cutting tool is widely used, recommend from 6000 to 10,000 pounds.

In recent operations in Colorado, where very hard granite was encountered and which was drilled into approximately 230 feet, about 25,000 pounds was found to be the advisable weight. With more than that amount the teeth were very rapidly cut off the rock bit, and the cone bushings showed excessive wear due to abrasion from particles of the granite which work between the cones and bushings. No formation comparable to this is encountered in the Mid-Continent fields.

WEIGHT INDICATORS

Devices for weighing the load on the derrick, usually called weight indicators, are coming into general use, for deep drilling in the Mid-Continent fields. Indications are of two types, namely those measuring the deflection of the derrick as a load is imposed, and those weighing the load directly by attachment to the dead line. This paper will consider the dead line type of weight indicator.

This type, as the name implies, is attached at any convenient point to the dead or stationary end of the drilling line. The line is held in a kink by the weight indicator, and tends to pull straight under load. In so doing it exerts a pressure proportional to the load against a diaphragm. This pressure is measured by ordinary gages, each unit of pressure representing a predetermined load value. The diaphragm unit is the only part of the assembly having special or patented features, any type of pressure gages being applicable for indicating the load. In practice, an ordinary gage is so placed as to be readily visible to the driller, with a recording gage placed at a protected point.

Weight indicators have certain definite advantages. They measure the total load of the drill pipe when running into or coming out of the hole. During the course of drilling they measure the weight or pressure imposed on the cutting tool,

and when a recording gage is used, they provide a permanent record of operations.

WEIGHTS HANDLED

In pulling the drill pipe out of the hole, or in handling long strings of casing it is obvious that there is not only a very considerable amount of weight to handle, but there is also the friction against the side of the hole to overcome. Weights of approximately 250,000 pounds have been recorded in starting off bottom with the bit caught in a caving hole. It is not inconceivable that, at extreme depths with six-inch or larger drill pipe, that weights of as much as 300,000 pounds may be reached. Such loads approach the limits of tensile strength of the hoisting new equipment now in use. High grade rotary drilling lines of one-inch diameter have a recommended working stress of from nine to 10 tons, with a breaking stress of approximately five times that figure. A load of 250,000 pounds distributed on seven lines gives a load per line of about 18 tons, or double the recommended working stress for a new line. If the line should be somewhat worn, excessive loads will cause breakage and consequent dropping of the drill pipe. There is the same possibility of breakage of the elevator, elevator links, and the hook, and even of pulling the pipe apart, while derricks under extreme loads may collapse. It is therefore, highly desirable to know, in the event of a hard pull, approximately what the load is, in order to keep it within the safe working limits of the equipment used. It is necessary to instruct all drillers regarding the maximum pull allowable.

At a depth below 2000 feet it is not normally desirable to set the entire weight of the drill pipe down on the cutting tool. It is advisable to suspend at least a part of the weight from the draw works brake drum or drilling control. As pointed out elsewhere in this paper, varying amounts of weight or pressure on the bit may be desirable in different formations to get maximum cutting speed. Furthermore, as a well is drilled deeper and more drill pipe is added to the string, the weight of the entire string increases so that there is no constant ratio between the permissible pressure on the bit and the weight of the drill pipe. It is therefore desirable that the amount of weight on the bit be known at all times. The weight indicator satisfies this requirement and permits of accurate regulation, regardless of depth.

USE OF RECORDING GAGE

In the absence of other means, a recording gage will, when used with the weight indicator, give the operator a permanent record of his operations. Drilling time, lost time, maximum loads, drilling pressures, and other valuable data, the compilation of which would be of great service to the individual operator, can be readily secured from recording gage charts. It is suggested that through this medium it is now possible to make comprehensive studies of rotary drilling, and to raise the general average efficiency of rotary operation.

The most serious fault of the weight indicators now available is that they are not as accurate as is desirable. They will not register, under ordinary conditions, load changes of less than 2000 pounds, which, particularly with a fishing job, is not sufficiently close. Experiments are now being conducted with electrical indicators and it is believed that in the near future instruments of much greater accuracy than are now available will be perfected.

A further minor fault in existing types of weight indicators is the fact that continued hard pulling tends to set the kink in the dead line, upon which the action of the weight indicator depends, making an occasional change in its position necessary. Some trouble is also encountered in maintaining perfectly tight conduits from the diaphragm unit to the gages, but this is purely mechanical and can be corrected by the operator in the field.

It should be borne in mind that the dead line indicator can only be used on the dead line. If it becomes necessary to string the casing or drilling line so that the dead end is tied into the traveling block instead of to the calf wheel or derrick base, there is no point to which the indicator can be attached.

Much Sought Oil Zone Found In Two Wells at Elmwood Field

(Continued from Page 38)

points is merely a guess. The district does seem to offer unusual opportunities, however, and it is believed that a large gas production, and possibly a large light oil production, will be developed. The fact that many other wells were drilled past 5000 feet in the district, means that production must necessarily be deep. Geologists are inclined to believe that it will be a 7500-foot light oil field—something new in petroleum history. The gas is needed more than the oil, although the latter in the extremely high gravity class would be far from unwelcome. The Milham well is making about 30 million cubic feet of gas and about 200 barrels of 45 gravity oil, according to the most conservative estimates. The pressure was terrific and balked all efforts to bring the well under control for more than two weeks. The well blew out from 7108 feet while redrilling with several hundred feet of open hole. The location is on Section 2-22-17, and considered near the center of the structure.

Rincon

Despite unfavorable developments in the Rincon field, production has passed 5000 barrels, with only 22 wells on production. The over-anxiety for a deep sand of gusher proportions seems to have worn off and the operators are busying themselves with the task of building up production between 3000 and 4100 feet. That a settled production considerably higher than the present figure is possible, is conceded, but the belief that the field will become an unsettling factor has about passed. Richfield Oil Company is still working with its Miley-Hobson 1, originally drilled to 6520 feet and plugged back for redrilling, with the hope of making some sort of commercial well of it from 6445 feet. The well is showing a good quantity of gas and will be tested as soon as the hole is reamed and casing cemented on top of the sand.

Union Avenue

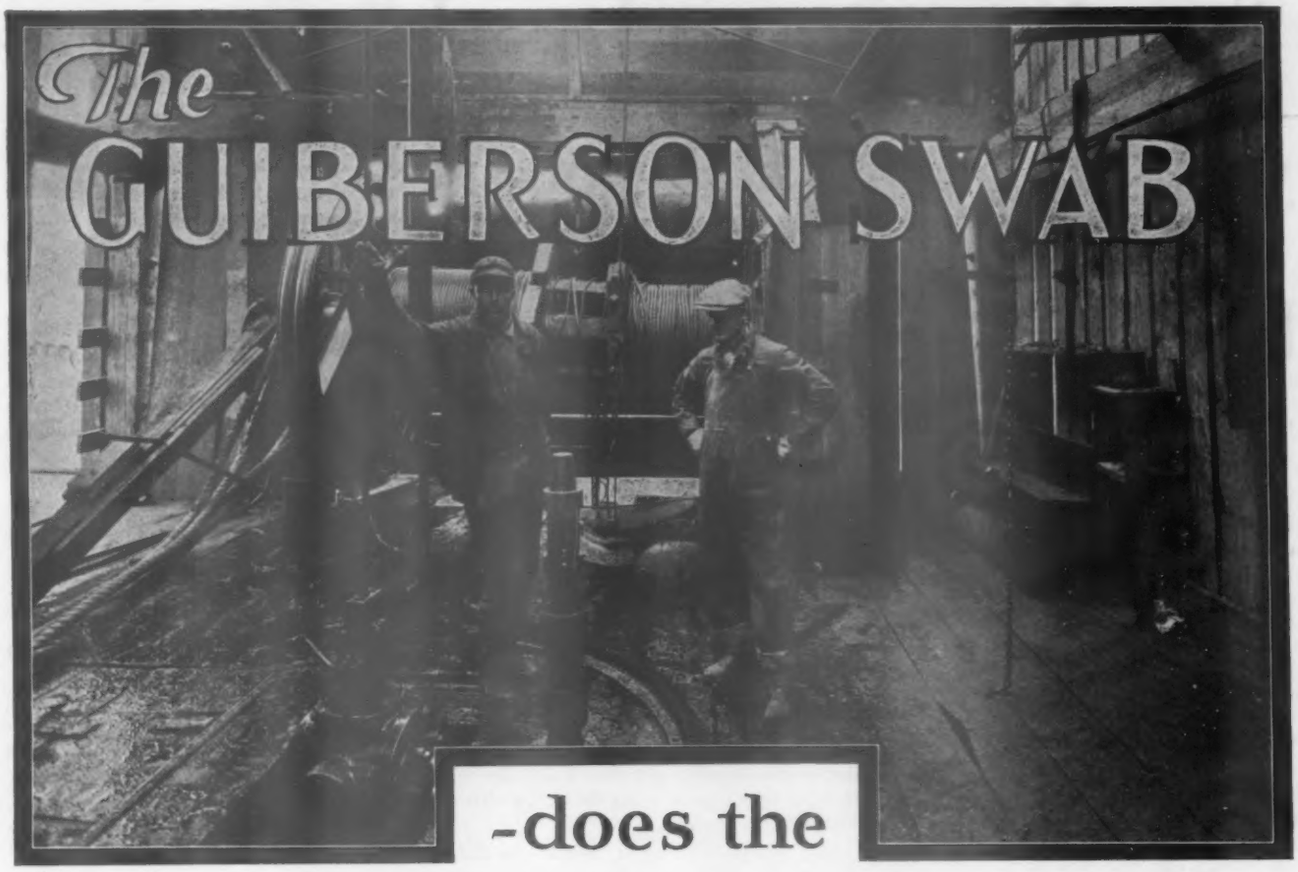
The Union Avenue district received another severe jolt, with the abandonment of Hughes Community 1 by the Pacific Eastern Production Company. The well was drilled to 4990 feet and failed to develop important showings at any depth. The test was located on Section 5-30-28 and drilled on the theory that the wells drilled on Section 6 may have been located off structure. The company's No. 4, Section 6-30-28, has also assumed a very doubtful aspect, having failed to encounter the showings found in other wells drilled on the section. Although commercial gas production has been developed in one of the five wells drilled in the area, there seems to be little hope of obtaining oil.

Associated Oil Company is preparing to complete V. L. W. 8, in the Ventura field, at 7500 feet. A string of 5¾-inch casing was landed at 7460 feet and cemented through perforations at 5990 feet. This well will test a new level in this part of the field and is being watched with interest. Three wells are drilling below 7000 feet in the field and should be completed within a month.

Nearly all shutin wells in the Kern Front field were opened up recently, but immediately closed in again after the announcement of a radical reduction in the price of crude from the district. The former price was 75 cents, while the new posted price is 50 cents. About 15,000 barrels has been shut in since last spring. The cost of production makes it practically impossible to operate with oil at only 50 cents.

The Lindsay Oil Company has successfully completed No. 1, Section 6-28-29, with an initial production of 500 barrels. With completion of this well, another new field has been opened up between Mt. Poso and Round Mountain. The well was completed at 1670 feet, with a 10-inch oil string and 1520 feet of three-inch tubing. The field is somewhat similar to Round Mountain and the Lytle Fault and is one of several lying along the upthrow of a major fault line running through the district. Three fields have been discovered along the fault in a little more than one year. The oil is principally under 20 gravity and is not a market factor at this time.

Oxnard, Calif.—The Ohio Oil Company, a comparatively recent entry in this state, has located a well on Section 32-3n-21w, near Saticoy, and will test acreage recently secured. Standard Oil Company of California and Shell Company have drilled several wells in the immediate area.



-does the *better* part of the world's swabbing either way you take it!

Best in the world or most in the world. Either way,—you have the GUIBERSON Swab. And the fact that the GUIBERSON does the *best* swabbing in the world is entirely responsible for the fact that it does *most* of the world's swabbing today.

The GUIBERSON Swab runs in without sticking, due to the extremely flexible cups yielding to wrinkles and projections. It runs in faster because fluid by-passes the flexible cups as well as running through the valve. It is more efficient, for, coming out, the fluid pressure holds the cup rims firmly against the casing wall, raising the full load. Cups are made of especially developed composition, remarkably durable, and will run for weeks in high gravity oil, without deterioration. Imbedded guide wires steer the cups safely by projections and pipe ends, and prevent tearing. One diameter of cups will operate in two sizes of casing, due to exceptional flexibility. Fully patented.

The photograph shows a GUIBERSON Swab in use on an Independent Oil and Gas Company well at Little River, Oklahoma.

"Better Be Safe Than Sorry"

THE GUIBERSON CORPORATION

Box 1106, Dallas, Texas

California Branch: 1506 Santa Fe Ave., Los Angeles

402 W. First St., TULSA
321 S. Osage St., PONCA CITY
506 Trust Bldg., NEWARK, O.

GUIBERSON

BETTER BE SAFE THAN SORRY

Say you saw it in The OIL WEEKLY

Moody-Seagraves Starts Work on New Line From Louisiana

HOUSTON.—Actual laying of pipe has been started by the Moody-Seagraves interests between the Richland and Monroe gas fields, North Louisiana, as part of the construction of the line which will connect those fields with the 22-inch line of the Dixie Gulf Gas Company, a Moody-Seagraves concern, at Waskom, Texas. When the line is completed, gas can be delivered through it direct to Houston and to Port Arthur. An interesting feature of the line will be its high pressure capacity, the plan being to run the gas direct out of the Richland and Monroe fields to Houston and Port Arthur on the pressure of the wells. This will be possible, as the average pressure of the wells which will feed into the line will be in excess of 1000 pounds.

The new line will incude 24 miles of 16-inch pipe from Richland to Monroe; and 112 miles of 20-inch high pressure pipe from Monroe to Waskom a total of 136 miles. The line will have a capacity of 110,000,000 cubic feet daily.

The pipe line is not being built through any actual present need for it, as the Moody-Seagraves interests already have their natural gas facilities well adjusted to current demand and conditions; but the project has been undertaken rather as a preparedness measure, to protect the consumers in the East Texas and South Texas territories with the reserves in those fields which will feed into the line. The Monroe field is one of the largest gas fields in the world, having now 325,000 acres of proven area; and in the Richland field there are 75,000 proven acres.

The Moody-Seagraves interests own individually or through controlled companies sufficient reserves to keep the new line running to capacity for a period of 20 years, according to estimates of engineers.

At present they have an open flow capacity, from wells already drilled, of 657,000,000 feet daily; and under the conservation laws of Louisiana the present producing capacity into the line is in excess of 130,000,000 feet daily.

In the two fields, Richland and Monroe, the Moody-Seagraves holdings total 26,000 acres. Their production in the Monroe field is through their subsidiary, the Richland Production Company; and in the Monroe field production is under the name of Moody & Seagraves.

Progress of work on the new high pressure line includes: 90 miles of survey completed; 45 miles of right-of-way secured; five miles of pipe strung between Richland and Monroe, and actual laying of the pipe began on Monday of this week. The 16-inch pipe for the sector between Richland and Monroe was purchased from the Youngstown Sheet & Tube Company. The 20-inch pipe for the rest of the line has not yet been bought.

When the project is completed, the Moody-Seagraves lines will connect with seven fields in the Shreveport area, including Richland, Monroe, Bethany, Waskom, Carterville, Cotton Valley and Greenwood; with gathering systems in each of those fields.

Houston and other South Texas centers are already being supplied with the natural gas by the Moody-Seagraves interests from the Refugio and White Point fields of Southwest Texas, and with the completion of the new line out of North Louisiana, will be doubly assured of a continuous and lasting supply of gas; and the double system will also take care of such an emergency as a break in either of the main systems.

The Moody-Seagraves affiliations constitute one of the largest natural gas systems in the world. Another large property which they own is the system in Southwest Texas, operated as the Southern Gas Company; it supplies San Antonio and towns of Central Texas with gas produced in the Laredo district and near San Antonio.

Ohio Seeking Permit For Gas Line to Salt Lake

Salt Lake City.—Oral evidence was submitted by both sides in the matter of the application of interests identified with the Ohio Oil Company for a certificate of convenience and necessity held last week before the public utilities commission, and briefs were filed. The matter will be taken under advisement and a decision rendered at some date after the national election. The Ohio interests would lay a gas pipe line from the Baxter Basin and Hiawatha Dome fields in southwestern Wyoming, to furnish towns along the right-of-way, as well as Salt Lake City and Ogden, with natural gas.

Tulsa.—Cities Service Gas Company, Empire subsidiary, has been delivering natural gas from Texas Panhandle fields into Kansas City and surrounding territory October 11, following completion and testing of the 132-mile extension from Wichita to Ottawa, Kansas. The Kansas City natural gas supply through Cities Service Gas Company was formerly obtained from shallow gas fields around Ottawa. Gas from the shallow district of Eastern Kansas is still being taken into the company's main system at Ottawa and is lending considerable pressure to the line into Kansas City.

The third 16-inch line from Ottawa to Kansas City is rapidly nearing completion, and will on completion afford an additional outlet for the 3000 miles of natural gas line now operated by Cities Service Company.

Cities Service Company's new extension makes a direct gas line system reaching approximately 425 miles. The supply of gas for this line is now in excess of 719,000,000 cubic feet open flow daily. The first unit of the line, reaching from the Texas Panhandle to Wichita, was completed nearly a year ago.

Wildcatting for Gas in Kettleman Hills Area

Los Angeles—The discovery of natural gas in the Kettleman Hills district has started what may be an extensive wildcatting campaign to develop a large gas supply for cities of the San Joaquin Valley. Dozens of large cities and towns are anxious to change from artificial to natural gas as soon as a permanent supply is in sight.

Union Avenue Prospects For Gas Get Setback

Los Angeles—Abandonment of one of the Pacific Eastern Production Company's drilling wells in the Union Avenue district considerably lessens the possibility of the development of a large production of natural gas in the area. One small gas well was completed but it showed sand after a few days. Since gas is secondary with the operators, little is expected along this line.

California Natural Gas Consumption Grows

Los Angeles—More natural gas is being used in California than ever before, according to a recent survey. This gradual increase has been caused by the increased production of natural gas and the natural growth of the state. Both domestic and industrial consumption should show an appreciable increase over that of last year.

Topeka, Kansas.—The Santa Fe Railroad shops here has contracted with the Capitol Gas & Electric Company here to use natural gas for fuel, and will consume between 45,000,000 and 60,000,000 cubic feet per month. Capitol Gas & Electric Company is supplied with natural gas by the Cities Service Gas Company.

Nov. 15

First Sailing of DIRECT Service From Gulf Ports to South American Oil Field Ports

S. S. Laila
Due Houston Nov. 7, sailing Nov. 15; due New Orleans Nov. 18, sailing Nov. 20.

S. S. Lake Festus
Due Houston Nov. 20, sailing Dec. 1; due New Orleans Dec. 3, sailing Dec. 5.

Announcement of the inauguration of this new direct shipment service has already caused much favorable comment from those manufacturing for the oil industry. These sailings direct from Port Houston and other Gulf ports to La Guayra, Puerto Cabello, Curacao, Maracaibo (without trans-shipment) Puerto Colombia and Cartegena mean a saving of time and in many instances a saving of rail freight rates. To better serve your customers investigate this DIRECT shipping service.

Cargo is also being accepted for the West Coast South American Ports, trans-shipment at Cristobal, embracing Buenaventura, Colombia, Callao, Peru, and the principal Chilean ports.

Wire or write nearest office for bookings and information.

Gulf-Caribbean Steamship Line

INCORPORATED

Cotton Exchange Building — Houston, Texas

New York City Office
Suite 103, 79 Wall St.—W. B. Phillips

New Orleans Office
706 Baronne Bldg.—Geo. R. Simno

Say you saw it in The OIL WEEKLY

Gulf Coast Field Development Notes

Five Sugarland Wells All Producers

Houston.—Humble Oil & Refining Company now has four producing oil wells and one gas well out of five completed tests in the Sugarland field, Fort Bend County; an unusual record for results on a salt dome discovered and outlined by geophysical work. The latest producer is the Sugarland Industries 2, which came in a few days ago making 960 barrels daily through a three-eighths-inch choke, with the bottom of the hole at 3672 feet. The oil registered 81 degrees temperature, and the flowing pressure of the well was 800 pounds.

This well has now been completed at three different levels, making some production from each. On July 11 it came in at 3341 feet and made 80 barrels in the first 24 hours; but it did not hold up and was deepened to 3592 feet, where it came in early in September flowing 50 barrels per day. It was subsequently deepened to the present level.

Following completion of this well at the new depth, the production of the field, from the four oil wells, is around 2350 barrels per day. Sugarland Industries 1, 2 and 3 together are making over 1400 barrels daily, and Camp 1, is making around 900 barrels per day.

Humble Oil & Refining Company is the only operator in the Sugarland field. Its present operations there include the following: Sugarland Industries 4, located 500 feet due north of the No. 1, is a derrick. Nelson 1 has set casing at 1037 feet and is now drilling rock at 1268 feet. Dew Brothers 1, located one-half mile southeast of the discovery well, is drilling rock at 1281 feet. Deathridge 1 will probably be abandoned; its total depth is 4310 feet.

Second Oil Producer in Refugio Gas Field

Houston.—Texas Gas Company, which completed the discovery oil well in the Refugio gas field, Refugio County, the latter part of June, this year, also has the distinction of bringing in the second oil producer—and on the opposite side of the field. The first oil well, Clint Heard 1, is located in the south part of the field; and the second one, completed last Sunday, is in the north extremity of the field, about three miles north and a quarter of a mile east of the original oil well. The new producer is Texas Gas Company's Holmes Heard 2, located in Lot 2, Block 8. Producing from 11 feet of sand at 3700 feet, the well was first put on a one-half-inch choke, through which it flowed at the rate of 3000 barrels per day for several hours, when it was pinched in further with a one-quarter-inch choke. Through the quarter-inch opening it was making 700 barrels Monday of this week, production being pipe line oil that tested 23.5 gravity.

With the exception of a gas well a quarter of a mile north of it, the new oil well is the most northerly producer in the field.

Texas Gas Company has 40 acres in the immediate vicinity of the new well, and some acreage close in is also held by the Houston Gulf Gas Company and by W. L. Pearson.

Texas Gas Company was taking care of the production just after the well was completed by means of earthen storage; but on Monday had ordered four 1000-barrel tanks sent to the site. The company is laying a pipe line to a loading rack at Refugio, a distance of about four miles.

The first oil well, located in the south part of the field, was sold together with the 100-acre tract on which it is located, by Texas Gas Company to Benedum-Trees. It is now making 350 barrels daily on a five-sixteenths-inch choke.

Headquarters of Texas Gas Company are in Houston. Its officers include: R. A. Wolfe, president; R. H. Hawn, secretary-treasurer; and Herman F. Heep, vice president. Those three men own practically all stock in the company. The company was organized in May, 1928; and since then has completed four wells in the Refugio field, two gas wells and two oil wells.

Boling Field Extended

Houston.—The Texas Company has completed Bushnell 1, an extension well in the Boling field, Fort Bend County, as an oil producer. From a total depth of 3938 feet the well came in making 500 barrels of oil and 20 per cent. water, with the production partially pinched. The oil tests 21.5 gravity.

This well is about three-quarters of a mile northwest of the nearest producer, Sun Oil Company's Rogers 1. It is north of the northeast extension of the field, in which are located the comparatively new wells, Gulf Production Company's Bay 4 and Hyde Production Company's Fodjek 1, both of which came in making some oil and much gas.

There are several interesting tests in progress of drilling at Boling now. Gulf Production Company, which about a month ago extended the producing area one mile eastward through completion of E. C. Farmer 1 for 1000 barrels at 3445 feet, is now drilling gumbo at 2340 feet in E. C. Farmer 2, offsetting the extension well. And in the same part of the field, Sun Oil Company is drilling sand at 2880 feet in E. C. Farmer 5, while E. C. Farmer 4 is rigging up.

Houston. — Liberty Petroleum Company's Turner 1, northeast extension well of the South Liberty field, is now on the pump, making 75 barrels of 41 gravity oil per day. This well is 1620 feet deep, and the oil is of unusually high gravity for a Coastal field. This well came in some weeks ago but later quit flowing.

Sun Company Offsetting Washington County Well

Houston. — Sun Oil Company has spudded Grote 2, first offset to Grote 1, recently completed discovery well of the Clay Creek dome in Washington County, 12 miles north of Brenham, near the town of Independence. The discovery well, according to a recent report, was flowing 65 barrels of 25.5 gravity oil daily at 1140-54 feet. Grote 2 is 688 feet northwest of Grote 1, its exact location being 521 feet from the northeast and 443 feet from the southeast line of the George F. Grote 75 acres, N. Clay survey.

In addition to Grote 2, Sun Oil Company has made location for Marcus 1, Schirmer 2, and Einman 1; and two additional rigs have been ordered into the field to supplement the one with which the discovery well was drilled.

Raccoon Bend

Houston.—Total daily production of the Raccoon Bend field, Austin County, from the two wells of the Humble Oil & Refining Company and Valley Oil Corporation is now around 850 barrels. According to a late report, Gotosky 3 was flowing 760 barrels on a three-eighths-inch choke; and Bracey 1 was making 90 barrels.

Humble Oil & Refining Company's drilling operations at Raccoon Bend now are as follows: The A. Grawunder C-1 is drilling below 80 feet in sand; Beal 1 drilling rock at 1032 feet; Bracey B-1 drilling at 1014 feet in rock; Walton 2 rigging up; Grawunder B-1 drilling shale and lime at 2046 feet; Urban 2 drilling shale and lime at 1730 feet; and Hardy 1 rigging up; making a total of seven tests active.

Los Angeles—Although a few wildcats have been started in the Los Angeles Basin during the past two months, idle wells considerably more than offset the new locations. Developments in the proven fields have held back wildcatting and will do so in the future even more than in the past.

Los Angeles—The Associated Oil Company is still withholding information relative to its Taylor 1, a wildcat drilling near Downey. Gas showings have been reported, but not confirmed, by the company. This test is about three miles west of the Santa Fe Springs field.

Los Angeles—The Texas Company has started drilling in its wildcat test on Section 35-4-10, near Garden Grove. The well is located a short distance southwest of Orange and about midway between Anaheim and Santa Ana. It is a strict wildcat, the nearest production being more than six miles away.

r-r-r-r-r-rip

W.K.W. – rips thru the earth

Ripping and tearing its way through hard and soft formations the W-K-W is a dual service bit. It *progressively* digs into the formation. Each tooth is set at a different elevation and more actual cutting surface is offered than by any other type of rotary bit. The teeth and reaming blades are faced with Titan, the hardest metal known.

W-K-W Bit Assures

1. More hole per bit.
2. Increased cutting surface.
3. Faster drilling.
4. Straighter hole.
5. Less strain on drill pipe.
6. Fewer twist-offs.
7. Less vibration.
8. Less cost per foot of hole drilled.
9. Less under-reaming.

W.K.W. Drilling Bit

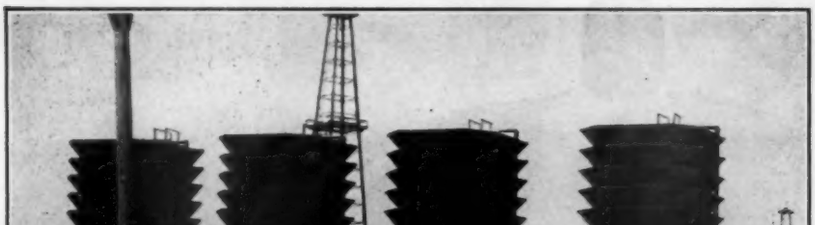
Patents Pending

Ask for new Catalog.

Wieman-Kammerer-Wright Co., Inc.

Hollydale (Los Angeles County), California

Say you saw it in The OIL WEEKLY



Maloney Durability and Strength

Insure Maximum Service

MALONEYS have the *durability* required for maximum length of service because they are made of rust-resisting Keystone Copper Steel. They have the *strength* to stand up through long service because they are made of heavy gauge sheets, with bolts of 90,000 pounds tensile strength, with rigid steel channels reinforcing seams and with heavy steel angles supporting decks.

Our patented "crimp" seams and joints, our special rubber packing and our Gaso cement combine to render MALONEYS oil, water and gas tight. Cleaning out plates are set flush with bottoms. Painting is with Maloney special pearl gray paint. Valves and thief hatches are the best to be had.

The illustration shows four 1,000-bbl. MALONEYS at gas lift plant No. 107, Carter Oil Co., Tewee Lease, Little River, Okla.

"Alone in Quality"

MALONEY TANK MFG. CO.

TULSA, OKLA., U. S. A.

Distributors at All Principal Petroleum Points

Sizes: 12 to 10,000 Barrels

Packed in Steel-Bound Crates for Export

Howell Aluminum "4-in-1" Vacuum Pressure Valve and Thief-Hatches—The BEST and LATEST Deck Equipment—POSITIVE Safety.

MADE OF KEYSTONE COPPER STEEL

MALONEY PATENTED BOLTED COPPER-STEEL TANKS

MADE OF KEYSTONE COPPER STEEL

MALONEY

"ALONE"

Oregon Basin Proration Committee Named

Casper, Wyo.—Operators in the Oregon Basin field met in Casper last Saturday and named a new committee to take charge of the efforts to prorate the production of that field. R. E. Wertz, of the Producers & Refiners Corporation, Judge F. W. Freeman of the Texas Production Company, Charles E. Orchard of the Orchard Oil Company, M. J. Foley of the Continental Oil Company, and John McFadyen of the Ohio Oil Company are the men who compose the new committee. M. J. Foley is chairman and supervisor, and A. Baker, in charge of the land department for the Ohio Oil Company, is secretary. It is the plan of this committee to secure an agreement of the Oregon Basin operators to prorate the runs and handle the production in a manner similar to that effected by Salt Creek operators several years ago. At that time Mr. Foley was supervisor, and prorated the oil among the Salt Creek operators when such an agreement was in force.

To Make Thorough Test of Tertiary in Utah

Salt Lake City, Utah.—Utah Southern Oil Company's third major operation within the borders of the State of Utah, SE SE Section 29-4s-1e, near Myton, is drilling below 200 feet in a 20-inch hole. Considerable attention is centered on this test since it is to be one of the first conclusive and thorough tests in Utah on the Tertiary formation, the producer of all the oil in California. A camp and a complete string of standard cable tools have been installed. The General Petroleum Company of California, subsidiary of the Standard Oil Company of New York, has approved the test, after a careful examination, and acquired a one-third interest in the holdings of the Utah Southern Oil Company.

Pondera Shipments

Great Falls, Mont.—Pipe line runs for last part of last week in the Pondera field showed an average of 7500 barrels per day being shipped. Most of this is going to the Maple Leaf refinery at Coutts, Alberta, in Canada.

Shoshone Structure

Cody, Wyo.—Ohio Oil Company is held up in the completion of its discovery well on Shoshone structure by casing trouble. Hole is bottomed at 4752 feet, and until the casing was run there was 2000 feet of oil standing in the hole.

Frannie Structure

Frannie, Wyo.—The Rosenburg interests' discovery well on Frannie structure is making about 350 barrels of crude per day, on the pump. When agitated the well flows and pumps in turn. Operator has a rig for an offset to the northeast.

Oklahoma City Well Now Below 6000 Feet

Oklahoma City. — Indian Territory Illuminating Oil Company's Oklahoma City 1, CSE SE Section 24-11-3w, big gas discovery six miles south of here, was in a blue shale Saturday of last week at 6044 feet. This test, drilling now with Wilcox sand pay as found in Logan County as its goal, has had an almost continuous stretch of shale since 5200 feet. A lime was encountered late last week at 6008 feet and drilled to 6014 feet with no showing of oil.

Indian Territory's Community 1, CNE SW Section 13-11-3w, is being rigged up to test for gas on a short-term lease north of the big gas discovery, which produced from both the Tonkawa and Layton sand series.

Cromwell & Wirt Franklin's Thompson 1, SE Section 15-12-3w, two miles north of the state capitol building, is shut down at 7001 feet, where an oil showing was had in what geologists consider is the top of the Wilcox formation. Cromwell & Wirt Franklin's Edwards 1, SE Section 10-12-3w,, which more than a year ago made Oklahoma County's first oil discovery with a 40-barrel initial yield from Tonkawa sand, is cleaning out and will try to shut off a water encroachment.

Resulting from Indian Territory's gas strike of 30,000,000 cubic feet the county has gone through one of the hottest lease plays of any district in the state during the last two months. New development is awaiting mainly the outcome of Indian Territory's deep test for possible Wilcox pay.

Dallas, Texas.—Headquarters of the Petroleum Pipe Line Company of Texas have been transferred from Houston to Dallas, where offices are located on the 11th floor of the Magnolia building. T. J. Mullin, former president of the American Petroleum Company, which is a large transporter and marketer of West Texas crudes, is president of the above concern, and a small field line and tank car rack is being operated in the Lockhart field, Southwest Texas.

West Texas Production

WINKLER COUNTY

Hendrick-Llano-O'Brien—		
Southern Crude and R. A. Westbrook	66	*21,760
Roxana Pet. Corp. and The Texas Co.	39	*16,180
Roxana Pet. Corp	35	*15,095
Gulf Production Company	27	*14,430
Pure Oil Company	30	*12,710
Atlantic Oil Producing Co.	27	*10,440
Humble Oil & Refining Co.	34	*9,195
Skelly Oil Company	13	*8,805
Atlantic & Collette-O'Keffe	12	*7,475
Southern Crude-Dixie Oil Co.	29	*6,215
Republic Production Company	11	*5,170
Murchison Oil Co. and Cranfill Bros.	8	*4,625
Independent Oil & Gas Co.	18	*4,215
Cranfill & Reynolds, Inc.	8	*3,960
Prairie Oil & Gas Co.	6	*3,460
Marland Production Co.	6	*2,420
Texon Oil & Land Company	11	*2,315
The California Company	8	*1,710
Sid Richardson et al	1	1,165
Magnolia Petroleum Company	8	930
Clint W. Murchison-T. P. Lee et al	2	*565
Amerada Petroleum Corp.	1	*545
Arizona Mining & Eng. Co.	1	*540
Atlantic-Kessler-Logan	1	*495
Empire Gas & Fuel Co.	1	*495
Eastland Oil Company	2	*410
Winkler Oil Producing Co.	1	*295
El Paso (Bankers) Prod. Co.	1	*50
Total	407	*155,670

CRANE COUNTY

Church & Fields—		
The Texas Company (was Landreth)	16	6,780
Simms Oil Co. and Atlantic Oil Prod. Co.	32	4,605
Prairie Oil & Gas Company	12	3,600
Tidal Oil Co. and Turman Maxwell	25	3,075
Magnolia Petroleum Company	33	2,890
Warner-Quinlan Co. of Texas	27	2,855
Humble Oil & Refining Company	14	2,650
Gulf Production Company	11	1,395
Independent Oil & Gas Company	7	1,190
Church & Fields et al	4	430
The Texas Company	3	370
T. P. Coal & Oil Company	1	70
Stidham & Thrasher	1	10
Total	186	29,920
Gulf-McElroy—		
Gulf Production Company	66	13,710
Gulf-Waddell—		
Gulf Production Company	1	20
Marland-Hughes—		
Marland Production Company	14	415
The Texas Company	9	120
C. C. Duffey et al	1	55
McMan Oil & Gas Company	2	50
Total	26	640
Total for Crane County	279	44,290

REAGAN COUNTY

Big Lake Oil Company	148	13,855
Texon Oil & Land Company	79	3,825
Skelly Oil Company	1	35
The California Company	1	15
Total	229	17,730

PECOS COUNTY

Yates Field—		
Mid-Kansas-Transcontinental Oil Co.	97	*35,430
Gulf Production Company	30	*9,755
Gulf Prod. Co. (Crockett County)	3	265
The California Company	37	*9,515
Simms Petroleum Company	7	*3,705
Roxana Petroleum Corporation	22	*3,650
McMan O. & G. Co. and Marland Prod Co.	17	*3,130
McMan Oil & Gas Company	9	*2,055
Humble Oil & Refining Company	15	*2,050
Oil Operators Trust and A. T. Herd	7	740
Marland Production Company	10	*575
Madza Oil Corp. and Savoy Oil Co.	3	*195
Kirby Pet. Co. and Edson Pet. Co.	1	*190
Matador Oil Company	2	*..
Red Bank Oil Company	4	*145
Skelly Oil Company	1	*105
Gravburg Oil Co. and T. T. Word	3	*100
Phillips Petroleum Company	1	*85
Crosby Drilling Company	1	*75
Kirby Petroleum Company	1	45
Dixie Oil Co. (Crockett County)	1	15
	272	71,825

JONES COUNTY

Phillips Petroleum Company	19	975
Snowden & McSweeney	2	760
Robert Oil Corp. and Cosden & Co.	4	435
Roeser-Pendleton-Lendreth	2	405
Hucony Gas Co. et al	2	375
Marland Production Company	4	285
The Texas Company and Cosden & Co.	1	80
Mid-West Exploration Co.	5	65
Rhodes & Higher et al	1	45
Robert Oil Corp. et al	1	40
Roeser-Pendleton-Devonian	1	20
Roeser-Pendleton-Stebbins	2	20
Total	44	3,505

MISCELLANEOUS

Howard County	209	*31,845
Upton County	284	10,685
Crockett County	40	2,485
Mitchell County	141	2,480
Fisher County	5	930
Runnels County	3	370
Loving County	6	285
Scurry County	5	30
Ector County	2	5
Total	695	49,115
Total for all fields	1,926	342,135
Total for previous week	1,900	335,080

*Production partially pinched.

CRUDE OIL PRICE QUOTATIONS

CURRENT POSTINGS

EASTERN STATES

	October 30 1928
Penna Grade Oil in New York Transit Lines (New York	$3.35
Bradford District Oil in National Transit Lines (Pennsylvania)	3.35
Penna Grade Oil in National Transit Lines (Pennsylvania)	3.25
Penna Crude Oil in Southwest Pennsylvania Lines (West Virginia)	3.25
Penna Grade Oil in Eureko Pipe Line Lines (Pennsylvania)	3.15
Penna Grade Oil in Buckeye Pipe Line Lines (Ohio)	3.00
Cabell Grade Oil in Eureka Pipe Line Lines (West Virginia) (July 13)	1.45
Corning 35-cent Grade Oil in Buckeye Pipe Line Co.'s lines (August 8)	1.70
Corning 25-cent Grade Oil in Buckeye Pipe Line Co.'s lines (Aug. 8)	1.80
Somerset Oil in Cumberland Pipe Line lines (Kentucky) (Sept. 14, 1928)	1.75
Ragland Grade Oil in Cumberland Pipe Line lines (Kentucky) (August 1)	.95
Keister (Pennsylvania)	1.20

CENTRAL STATES

Illinois	1.55
Indiana	1.37
Lima	1.60
Plymouth	1.28
Princeton	1.55
Waterloo	1.35
Wooster	1.77

WESTERN KENTUCKY

Posted by Stoll Refining Company for crude from Allen, Warren, Franklin, Davies, Barren.

All grades	1.75

MID-CONTINENT

Carter Oil Company, Gulf Pipe Line Company, Sinclair Pipe Line Company, Prairie Oil and Gas Company and The Texas Company.*

25 to 25.9 gravity	.67
26 to 26.9 gravity	.74
27 to 27.9 gravity	.81
28 to 28.9 gravity	.88
29 to 29.9 gravity	.95
30 to 30.9 gravity	1.02
31 to 31.9 gravity	1.09
32 to 32.9 gravity	1.16
33 to 33.9 gravity	1.21
34 to 34.9 gravity	1.26
35 to 35.9 gravity	1.31
36 to 36.9 gravity	1.36
37 to 37.9 gravity	1.41
38 to 38.9 gravity	1.46
39 to 39.9 gravity	1.51
40 to 40.9 gravity	1.56
41 to 41.9 gravity	1.61
42 to 42.9 gravity	1.66
43 to 43.9 gravity	1.71
44 and above	1.76

*The Texas Company posts a price of 60 cents on 24 to 24.9 gravity, and Gulf's posting begins at 28 to 28.9.

MID-CONTINENT

Magnolia Petroleum Company

Below 25 gravity	.60
25 to 25.9 gravity	.67
26 to 26.9 gravity	.74
27 to 29.9 gravity	.75
30 to 30.9 gravity	.90
31 to 31.9 gravity	1.05
32 to 32.9 gravity	1.16

From 33 to 44 gravity and above, Magnolia Petroleum Company prices are the same as those of Carter Oil Company.

NORTH AND CENTRAL TEXAS

Ranger, North Texas, Mexia, Powell, Richland, Wortham, Currie, Moran, Nocona and Lytton Springs Crude (Humble Oil and Refining Company)*

25 to 25.9 gravity	.67
26 to 26.9 gravity	.74
27 to 27.9 gravity	.81
28 to 28.9 gravity	.88
29 to 29.9 gravity	.95
30 to 30.9 gravity	1.02
31 to 31.9 gravity	1.09
32 to 32.9 gravity	1.16
33 to 33.9 gravity	1.21
34 to 34.9 gravity	1.26
35 to 35.9 gravity	1.31
36 to 36.9 gravity	1.36
37 to 37.9 gravity	1.41
38 to 38.9 gravity	1.46
39 to 39.9 gravity	1.51
40 to 40.9 gravity	1.56
41 to 41.9 gravity	1.61
42 to 42.9 gravity	1.66
43 to 43.9 gravity	1.71
44 and above	1.76

SOUTH TEXAS

Mirando	1.00

SOMERSET

Grayburg

	October 30 1928
Below 33 gravity	1.05
33 to 33.9 gravity	1.07
34 to 34.9 gravity	1.09
35 to 35.9 gravity	1.11
36 to 36.9 gravity	1.13
37 to 37.9 gravity	1.15
38 and above	1.17

GULF COAST

Grade "A" all companies	1.20
Gulf Coast Light Oil, below 25	1.15
25 to 25.9 gravity	1.17
26 to 26.9 gravity	1.19
27 to 27.9 gravity	1.21
28 to 28.9 gravity	1.23
29 to 29.9 gravity	1.25
30 to 30.9 gravity	1.27
31 to 31.9 gravity	1.29
32 to 32.9 gravity	1.31
33 to 33.9 gravity	1.33
34 to 34.9 gravity	1.35
35 to 35.9 gravity	1.37
36 to 36.9 gravity	1.39
37 to 37.9 gravity	1.41
38 to 38.9 gravity	1.43
39 to 39.9 gravity	1.45
40 and above	1.47

*Humble Oil & Refining Company's postings on Gulf Coast Light stop at 35 to 35.9. Its price on all crudes above 35 to $1.37 per barrel.

Magnolia Petroleum Company's postings stop at 31 to 31.9.

MARKHAM

The Texas Company

All grades	1.00

LULING

All grades	1.00

PANHANDLE GRAY COUNTY

(Humble Oil and Refining Company, Magnolia Petroleum Company, Gulf Pipe Line Company and Sinclair Pipe Line Company).

Below 29 gravity	.68
29 to 29.9 gravity	.75
30 to 30.9 gravity	.82
31 to 31.9 gravity	.89
32 to 32.9 gravity	.96
33 to 33.9 gravity	1.01
34 to 34.9 gravity	1.06
35 to 35.9 gravity	1.11
36 to 36.9 gravity	1.16
37 to 37.9 gravity	1.21
38 to 38.9 gravity	1.26
39 to 39.9 gravity	1.31
40 to 40.9 gravity	1.36

CALIFORNIA CRUDE OIL PRICES AT THE WELL

Following are the current prices offered by Standard Oil Company for crude oil at the well: (Price per barrel of 42 gallons in fields indicated.

Gravity	Signal Hill	Alamitos Hts Seal Beach	Huntington Beach	Inglewood	Olinda-Brea Canon	Athens-Rosecrans Dominguez	Torrance	Richfield	Whittier La Habra	Montebello	Coyote Hills	Santa Fe Springs	Newhall McKittrick Kern River	Midway Sunset Elk Hills	Buena Vista Hills	Lost Hills	Coalinga	Wheeler
14-14.9	$ .85	$ .85	$ .85	$ .85	$ .85	$ .85	$ .85	$ .85	$ .85	$ .85	$ .85	$ ...	$ .50	$ .75	$ .75	$ .75	$ .75	$ .75
15-15.9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	...	.50	.75	.75	.75	.75	.75
16-16.9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	...	.50	.75	.75	.75	.75	.75
17-17.9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	...	.50	.75	.75	.75	.75	.75
18-18.9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	...	.50	.75	.75	.75	.75	.75
19-19.9	.85	.85	.85	.85	.85	..	.85	.85	.85	.85	.85	...	.50	.75	.75	.75	.75	.75
20-20.9	.85	.85	.85	.85	.85	..	.85	.85	.85	.86	.85	..	..	.77	.77	.77	.77	.77
21-21.9	.89	.89	.89	.89	.89	..	.89	.89	.88	.89	.88	.89	..	.79	.79	.79	.79	.79
22-22.9	.93	.93	.93	.93	.93	..	.93	.93	.91	.92	.91	.92	..	.82	.82	.82	.82	.82
23-23.9	.97	.97	.97	.97	.97	..	.97	.97	..	.95	.94	.93	..	.86	.86	.86	.85	.85
24-24.9	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	..	.98	.97	.98	..	.90	.90	.90	.88	.88
25-25.9	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	..	1.01	1.00	1.01	..	.95	.95	.95	.91	.91
26-26.9	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	..	1.04	1.04	1.04	..	1.00	1.00	1.00	.94	.94
27-27.9	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	..	1.07	1.08	1.07	..	1.05	1.05	1.05	.98	.97
28-28.9	1.17	1.17	1.17	1.17	1.17	1.17	1.17	1.17	..	1.10	1.12	1.10	..	1.10	1.10	1.10	1.02	..
29-29.9	1.21	1.21	1.21	..	1.21	1.21	..	1.21	..	1.13	1.16	1.15	..	1.16	1.16	1.16	1.06	..
30-30.9	1.25	1.25	1.25	..	1.25	1.25	..	1.25	..	1.16	1.20	1.20	..	1.22	1.22	1.22	1.10	..
31-31.9	1.30	1.30	1.30	..	..	1.30	..	..	..	..	..	1.25	..	1.28	1.28	1.28	1.14	..
32-32.9	1.35	1.35	1.35	..	..	1.35	..	..	..	..	..	1.30	..	1.34	1.34	1.34	1.18	..
33-33.9	..	..	..	..	..	1.41	..	..	..	..	..	1.35	..	1.40	1.40	1.40	1.22	..
34-34.9	..	..	..	..	..	1.47	..	..	..	..	..	1.40	..	..	..	1.46	1.26	..
35-35.9	..	..	..	..	..	1.53	..	..	..	..	..	1.45	..	..	..	..	1.30	..
36-36.9	..	..	..	..	..	1.59	..	..	..	..	..	1.50	..	..	..	..	..	..
37-37.9	..	..	..	..	..	1.65	..	..	..	..	..	1.55	..	..	..	..	..	..
38-38.9	..	..	..	..	..	1.71	..	..	..	..	..	1.60	..	..	..	..	..	..
39-39.9	..	..	..	..	..	1.77	..	..	..	..	..	1.65	..	..	..	..	..	..
40-40.9	..	..	..	..	..	1.83	..	..	..	..	..	..	..	..	..	..	..	..
41-41.9	..	..	..	..	..	1.89	..	..	..	..	..	..	..	..	..	..	..	..
42-42.9	..	..	..	..	..	1.95	..	..	..	..	..	..	..	..	..	..	..	..

Get *extra* results in the battle for new business by selling

OPALINE.. the **extra** service Motor Oil.....

REG. U.S. PAT. OFF.

Giving a motorist something *EXTRA* wins his patronage and keeps it. If you are an Authorized Opaline Dealer you *DO* give a motorist something *extra*—you give him, in Opaline, not only the right quality of motor oil, but you give him the right *grade*. You give him the grade which fits the degree of wear in his engine and seals the pistons to *prevent power from blowing by!* That's the *extra* service a motorist gets from Opaline—an *extra* service he will appreciate getting from you. The Opaline method of applying motor oil is precise, successful—and exclusive with Authorized Opaline Dealers. May we tell you about it?

SINCLAIR REFINING COMPANY, INC.

Also Makers of Sinclair Gasoline and H-C Gasoline

45 NASSAU STREET, NEW YORK

Atlanta Boston Chicago Houston Kansas City

© 1928 S.R.C.

	October 30 1928
41 to 41.9 gravity	1.41
42 to 42.9 gravity	1.46
43 to 43.9 gravity	1.51
44 and above	1.56

WHEELER COUNTY
(Humble Oil and Refining Company and Magnolia Petroleum Company)

Below 30 gravity	.65
30 to 30.9 gravity	.72
31 to 31.9 gravity	.79
32 to 32.9 gravity	.86
33 to 33.9 gravity	.91
34 to 34.9 gravity	.96
35 to 35.9 gravity	1.01
36 to 36.9 gravity	1.06
37 to 37.9 gravity	1.11
38 to 38.9 gravity	1.16
39 to 39.9 gravity	1.21
40 to 40.9 gravity	1.26
41 to 41.9 gravity	1.31
42 to 42.9 gravity	1.36
43 to 43.9 gravity	1.41
44 and above	1.46

CARSON-HUTCHINSON COUNTIES
(Humble Oil and Refining Company, Magnolia Petroleum Company and Gulf Pipe Line Company)

Below 32 gravity	.69
32 to 32.9 gravity	.76
33 to 33.9 gravity	.81
34 to 34.9 gravity	.86
35 to 35.9 gravity	.91
36 to 36.9 gravity	.96
37 to 37.9 gravity	1.01
38 to 38.9 gravity	1.06
39 to 39.9 gravity	1.11
40 to 40.9 gravity	1.16
41 to 41.9 gravity	1.21
42 to 42.9 gravity	1.26
43 to 43.9 gravity	1.31
44 and above	1.36

WEST TEXAS
(Humble, Gulf, Magnolia, The Marland Company and Southern Crude Oil Purchasing Company)*

Crane-Upton, Crockett, Pecos and Winkler Counties, all grades	.65

*Gulf does not post in Winkler County; Magnolia posts in Crane, Upton and Winkler Counties and that part of Glasscock not included in the Chalk field. The Marland Company posts only in Crane, Upton and Crockett Counties; Southern posts only in Crane, Upton and Winkler Counties.

(Magnolia Petroleum Company)

Mitchell County	$ .80
Howard-Glasscock County (shallow)	.80
Howard-Glasscock County (deep)	.65

Col-Tex Refining Company

Howard and Mitchell Counties	$ .80

WYOMING-MONTANA
Wyoming

Byron	1.33
Ferris	1.60
Elk Basin	1.48
Grass Creek	1.48
Rock Creek	1.33
Lost Soldier	.95
Lance Creek	1.48
Mule Creek	1.10
Notches	.65
Big Muddy	1.33
Osage	1.33
Hamilton Dome	.85
Pilot Butte	1.75
Torchlight-Greybull	1.33
Lander	.80
Simpson Ridge	.80
Rex Lake	1.10
South Casper Creek-Poison Spider	1.00

Salt Creek
Midwest Refining Company

29 to 29.9 gravity	1.14
30 to 30.9 gravity	1.16
31 to 31.9 gravity	1.18
32 to 32.9 gravity	1.20
33 to 33.9 gravity	1.22
34 to 34.9 gravity	1.24
35 to 35.9 gravity	1.26
36 to 36.9 gravity	1.28
37 and above	1.30

MONTANA

Sunburst	$1.65
Cat Creek	1.33
Lake Basin	2.20

NEW MEXICO

	October 30 1928
Artesia	1.08
Hogback	1.38

CANADA

Oil Springs	2.07
Petrolia	2.00

NORTH LOUISIANA
(The Texas Company)

24 to 24.9 gravity	.76
25 to 25.9 gravity	.81
26 to 26.9 gravity	.86
27 to 27.9 gravity	.91
28 to 28.9 gravity	.96
29 to 29.9 gravity	1.01
30 to 30.9 gravity	1.06
31 to 31.9 gravity	1.11
32 to 32.9 gravity	1.16
33 to 33.9 gravity	1.19
34 to 34.9 gravity	1.22
35 to 35.9 gravity	1.25
36 to 36.9 gravity	1.28
37 to 37.9 gravity	1.31
38 to 38.9 gravity	1.34
39 to 39.9 gravity	1.37
40 to 40.9 gravity	1.40
41 to 41.9 gravity	1.43
42 to 42.9 gravity	1.46
43 to 43.9 gravity	1.49
44 to 44.9 gravity	1.52
45 to 45.9 gravity	1.55
46 to 46.9 gravity	1.58
47 to 47.9 gravity	1.61
48 to 48.9 gravity	1.64
49 to 49.9 gravity	1.67
50 to 50.9 gravity	1.70
51 to 51.9 gravity	1.73
52 and above	1.76

LOUISIANA-ARKANSAS
Homer, Haynesville, Caddo, El Dorado, De Soto and Crichton and Cotton Valley**
(Atlantic Oil Producing Company, Standard of Louisiana, Magnolia Petroleum Company and The Texas Company).

	October 30 1928
27 to 27.9 gravity	.81
28 to 28.9 gravity	.88
29 to 29.9 gravity	.95
30 to 30.9 gravity	1.02
31 to 31.9 gravity	1.09
32 to 32.9 gravity	1.16
33 to 33.9 gravity	1.21
34 to 34.9 gravity	1.26
35 to 35.9 gravity	1.31
36 to 36.9 gravity	1.36
37 to 37.9 gravity	1.41
38 to 38.9 gravity	1.46
39 to 39.9 gravity	1.51
40 to 40.9 gravity	1.56
41 to 41.9 gravity	1.61
42 to 42.9 gravity	1.66
43 to 43.9 gravity	1.71
44 gravity and above	1.76

*Shreveport-Eldorado's postings stop at above 40 gravity.

**Below 36 gravity, the posting on Cotton Valley is 75 cents. From 36 to 52 and above the regular gravity schedule is followed.

STEPHENS
(All Companies)

Below 28 gravity	.75
28 to 28.9 gravity	.79
29 to 29.9 gravity	.83
30 to 30.9 gravity	.87
31 to 31.9 gravity	.91
32 gravity and above	.95

SMACKOVER
(All Companies)

Below 24 gravity	.75
24 and above	.90
Bellevue	1.25
Jennings	1.15
Vinton	1.30
Edgerly	1.30
Starks Dome	1.30
Urania	.85
Calion	.75

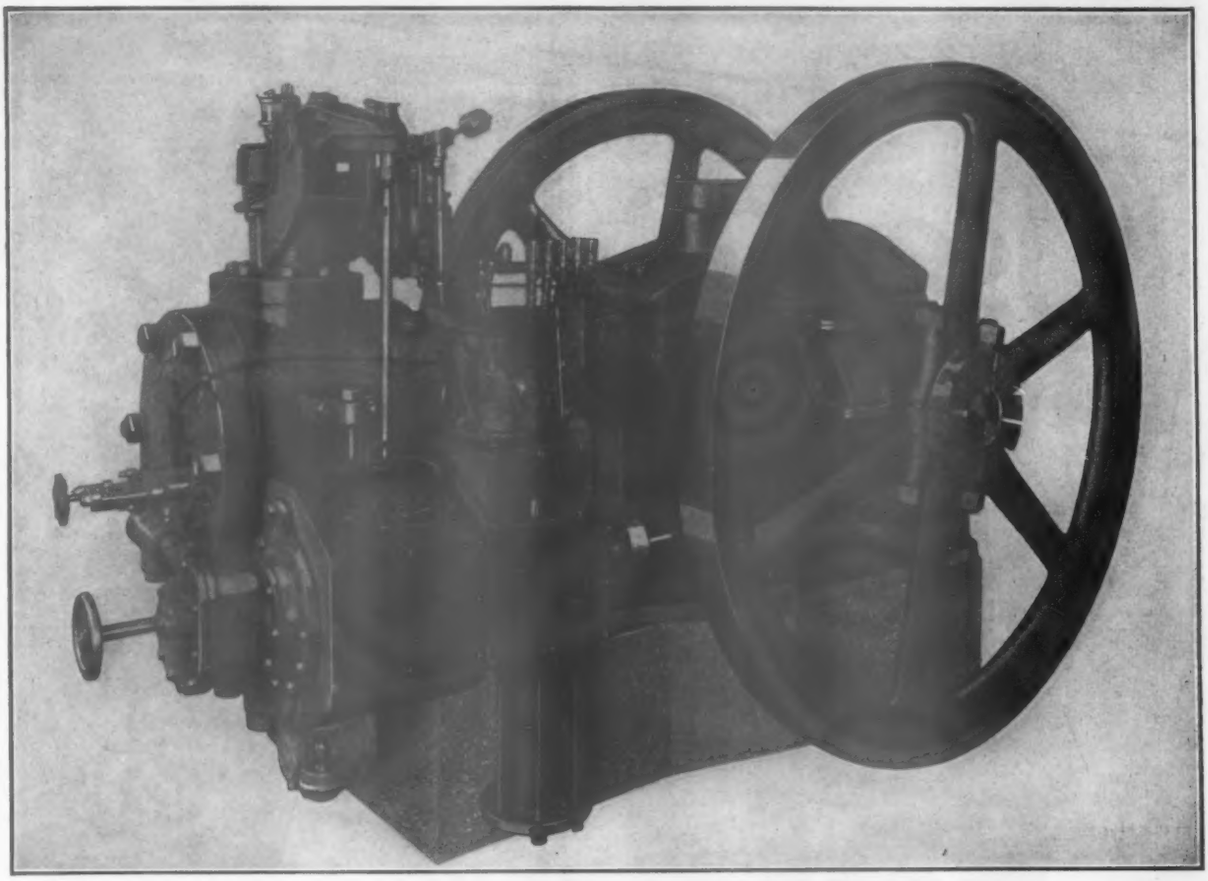
IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS
American Petroleum Institute Figures (Barrels of 42 gallons)

	Oct. 20	Oct. 13
AT ATLANTIC COAST PORTS—		
Baltimore	153,000	79,000
Boston	72,000	210,000
New York	912,000	693,000
Philadelphia	169,000	266,000
Others	70,000	72,000
Total	1,376,000	1,320,000
Daily average	196,571	188,571
AT GULF COAST PORTS—		
Galveston District	.....	.....
New Orleans and Baton Rouge	257,000	a185,000
Port Arthur and Sabine District	60,000	a35,000
Tampa	50,000	.....
Total	367,000	220,000
Daily average	52,429	31,429
AT ALL UNITED STATES PORTS—		
Total	1,743,000	1,540,000
Daily average	249,000	220,000
Daily average four weeks ended	241,750	225,429

RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF COAST PORTS
American Petroleum Institute Figures (Barrels of 42 Gallons)

AT ATLANTIC COAST PORTS—		
Baltimore	216,000	75,000
Boston	.....	.....
New York	75,000	101,000
Philadelphia	.....	201,000
Others	.....	.....
Total	291,000	377,000
Daily average	41,571	53,857
AT GULF COAST PORTS—		
Daily average	.....	.....
TOTAL—ATLANTIC AND GULF COAST PORTS—	291,000	377,000
Daily average	41,571	53,857
Daily average four weeks ended	48,286	71,179
DISTRIBUTION OF TOTAL CALIFORNIA OIL RECEIPTS IS AS FOLLOWS—		
Crude	.....	98,000
Gasoline	291,000	279,000
Total	291,000	377,000

aRevised.



Governor Side—30 H.P. Type B Four Cycle Gas Engine

REID FOUR CYCLE GAS ENGINES

The three new sizes—the 30, 35, and 40 HP.—of Type B Four Cycle Gas Engines have, as one of the important features of their design, machined main bearings. They can be fitted with either Timken Tapered Roller Bearings or replaceable, steel-backed, babbitt-lined shell bearings. Laminated shims provide easy adjustment of the bearing shells.

Other features of these engines include Timken lay shaft bearings, Oil Purolator, gear driven governor of Reid design, and dependable Wico ignition.

Write for complete information on these engines.

JOSEPH REID GAS ENGINE COMPANY, OIL CITY, PENNSYLVANIA, U. S. A.

BRANCHES

Marietta, Newark, and Logan, Ohio; Charleston, W. Va.; Shreveport, La.; S. R. Shoup, 724 Board of Trade Building, Los Angeles, California.

BRANCH SHOP—Tulsa, Oklahoma.

AGENCIES

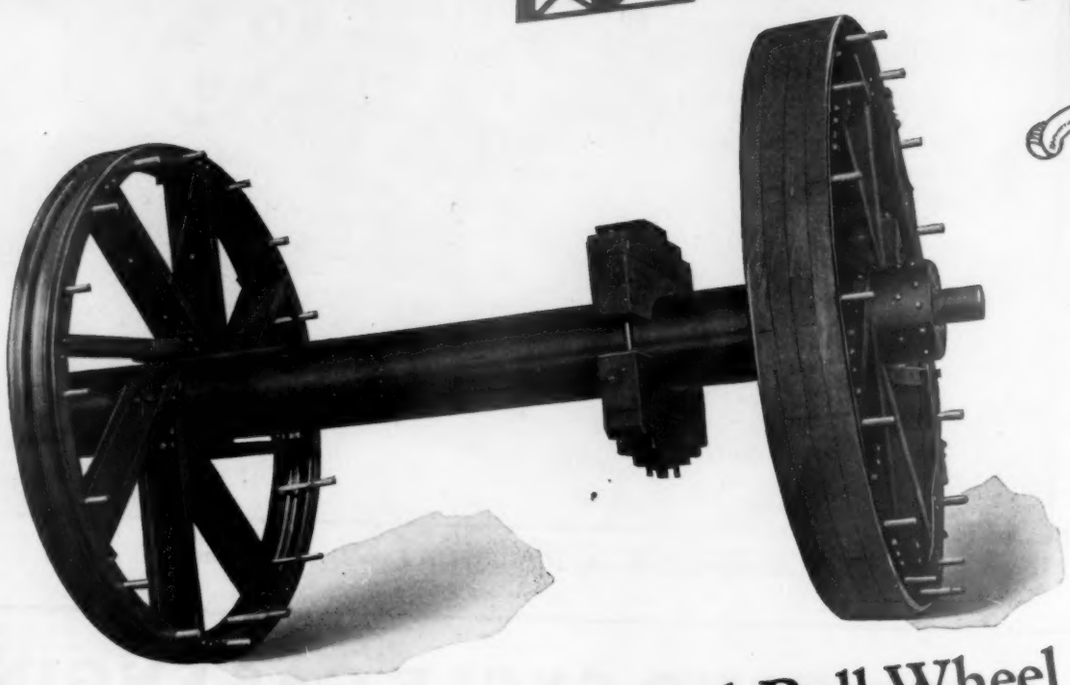
Frick-Reid Supply Corp., Pittsburgh, Pa., and Tulsa, Okla., Distributors for Bradford and Pittsburgh, Pa., Kentucky, Oklahoma, Kansas, Texas, Arkansas and Wyoming.

R. B. Moore, Bolivar, N. Y.

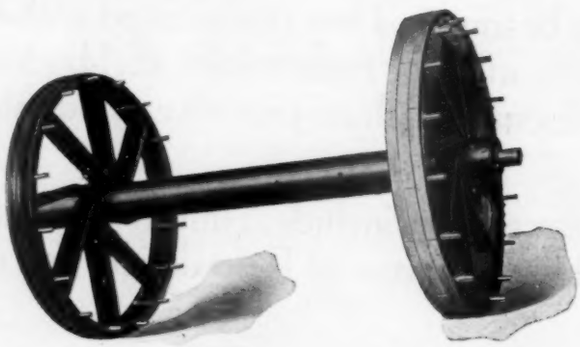
EXPORT SALES REPRESENTATIVE: Oilfield Equipment Co., Inc., 30 Church Street, New York City.

Say you saw it in The OIL WEEKLY

Use the Moore



Moore Heavy Duty Steel Bull Wheel



Light Type Bull Wheel

7′ 6″ diameter. Steel shaft 13″ @ 48.73 lbs. Gudgeons 13′ 6″ shoulder to shoulder. Trunnions 5″ diameter x 6″. 8-spoke wheels with 9″ brake face. Hickory hand pins.

Spoke Construction

Flanges of spokes are trimmed to facilitate assembly. Spokes are tangent, giving direct pull on the shaft. Shaft is shrunk on and gudgeons riveted.

Say you saw it in The OIL WEEKLY

BULL WHEEL

for HEAVY DUTY

It will transmit a maximum of power and give long continuous service. The heavy shaft is heated and shrunk over the gudgeons, which are securely riveted in place. One-piece rolled steel tug rim with double V groove tug. Spokes are tangent to the shaft and the flanges of the spokes are trimmed for easy assembly. Standard wheels; 13′ 6″ shoulder to shoulder; either 16″ or 18″ diameter shaft with ½″ wall; 5″ diameter x 6″ trunnions; 9″ or 12″ face brake wheel; one divider and 32 hickory hand pins.

Moore Heavy Duty Steel Bull Wheels conform to A. P. I. dimensionals standards.

for PUMPING SERVICE

This is an economical light type steel bull wheel for shallow drilling, cleaning out and pumping service. After drilling, it may readily be substituted for the standard wheel as it has a shaft of same length and trunnions of same size. The shaft is heated and shrunk on the gudgeons before riveting. Moore wing plate construction with tangent spokes. Double V groove tug.

LEE C. MOORE & CO., *Inc.* PITTSBURGH · TULSA

Established 1907
NEW YORK OFFICES: OILFIELD EQUIPMENT COMPANY
30 CHURCH ST., NEW YORK, N. Y.
Stocks in All Principal Fields

DALLAS, TEXAS
HOUSTON, TEXAS
WICHITA, KANSAS

PARKERSBURG, W. VA.
CASPER, WYO.
SHREVEPORT, LA.

Moore
STEEL DERRICKS
ALL STEEL RIG EQUIPMENT

Say you saw it in The OIL WEEKLY

United States Daily Average Production

Figures below are taken from the complete revised estimates of the AMERICAN PETROLEUM INSTITUTE except for the current week, which are advance estimates issued by the A. P. I. and are subject to revision:

1927	Oklahoma	Kansas	Texas (Outside Gulf Coast)	Gulf Coast	North Louisiana	Arkansas	Eastern States	Rocky Mountain	California	United States Daily Ave.	United States Total
July	846,750	107,750	475,800	142,950	56,200	109,900	111,800	86,950	620,700	2,558,800	79,322,300
August	832,900	105,100	483,450	139,350	56,950	104,750	114,600	80,750	621,450	2,539,300	78,717,850
September	797,450	105,200	493,750	142,900	53,450	101,350	110,800	74,500	637,250	2,516,650	75,498,900
October	782,300	105,100	497,900	138,400	51,300	100,450	113,600	73,250	629,000	2,491,300	77,230,000
November	766,900	106,650	501,750	138,100	49,400	97,850	114,900	75,050	623,850	2,474,450	74,233,500
December	720,700	106,150	531,650	138,500	47,200	94,950	111,250	77,150	624,600	2,452,150	76,017,050
1928											
January	675,450	108,300	523,300	125,450	45,250	90,050	109,600	77,000	617,100	2,371,500	73,516,500
February	664,450	110,550	538,750	115,800	45,300	88,250	104,850	75,550	614,750	2,358,250	68,388,850
March	646,850	112,250	575,850	119,900	44,400	85,600	102,150	78,700	617,450	2,383,150	73,877,650
April	620,450	112,150	617,850	118,850	46,900	83,450	107,000	78,500	613,550	2,398,700	71,961,100
May	610,100	108,750	561,450	129,850	43,600	91,250	112,100	82,200	630,900	2,370,200	73,476,300
June	594,850	105,200	554,400	135,400	42,350	102,850	109,300	82,400	643,400	2,370,150	71,104,500
July	587,150	102,750	597,250	133,650	42,150	90,700	113,400	80,400	644,700	2,392,150	74,156,600
August	656,350	102,200	604,000	130,200	40,200	87,500	113,300	77,700	634,150	2,445,600	75,534,600
September	724,850	99,750	604,150	129,500	39,050	84,700	112,550	78,850	631,650	2,505,050	75,151,500
October 6	745,000	98,350	611,750	128,350	38,900	84,250	113,000	81,700	622,700	2,524,000	17,668,000
October 13	748,500	98,450	594,500	124,050	39,550	84,700	114,000	81,750	620,000	2,505,500	17,538,500
October 20	743,350	98,300	596,500	130,500	38,650	82,300	114,500	84,500	615,800	2,504,400	17,530,800
October 27	738,050	97,200	598,350	132,650	38,550	83,250	115,000	85,450	635,200	2,523,700	17,665,900
Increase	.....	.....	1,850	2,150	.....	950	500	950	19,400	19,300	135,100
Decrease	5,300	1,100	.....	.....	100	.....	.....	.....	.....	.....	.....

TEXAS

(Outside Gulf Coast)

PANHANDLE DISTRICT

	Oct. 27	Oct. 20
Carson County	6,150	6,400
Gray County	28,650	25,400
Hutchinson County	30,800	30,600
Wheeler County	900	800
Others	2,150	2,100
Total	68,650	65,300

NORTH TEXAS

Archer County	19,500	19,300
Burkburnett	9,650	9,550
Electra	12,750	12,900
Iowa Park-K-M-A	3,600	3,550
Montague and Cooke Counties	10,400	10,500
Wilbarger	33,600	35,000
Others	600	600
Total	90,100	91,400

WEST CENTRAL TEXAS

Brown County	10,900	11,000
Callahan County	3,500	3,400
Coleman County	4,100	3,800
Eastland-Desdemona	6,950	6,850
Jack County	1,500	1,400
Palo Pinto County	400	400
Shackelford County	10,700	10,650
Stephens County	7,000	7,000
Throckmorton	800	800
Young County	8,600	8,450
Others	700	700
Total	55,150	54,450

WEST TEXAS

Crane-Upton Counties	55,200	55,050
Crockett County	2,900	2,900
Howard County	31,700	28,800
Jones County	3,850	4,000
Mitchell-Scurry Counties	2,800	2,850
Pecos County	74,000	71,800
Reagan County	17,700	17,700
Winkler County	146,000	152,250
Others	1,500	1,500
Total	335,650	336,850

EAST CENTRAL TEXAS

Boggy Creek	2,450	2,200
Corsicana-Powell	9,800	9,800
Currie	550	550
Mexia	6,600	6,600
Nigger Creek	700	700
Richland	500	500
Wortham	1,600	1,600
Total	22,200	21,950

SOUTHWEST TEXAS

Dale	1,000	1,100
Laredo District	9,000	9,100
Luling	13,250	13,150
Lytton Springs	1,000	1,000
Somerset	700	700
Others	1,650	1,500
Total	26,600	26,550
T'tl Tex. (Outside Gulf Coast)	598,350	596,500

TEXAS GULF COAST

Barbers Hill	2,850	3,300
Batson	1,400	1,400
Big Creek	2,200	2,500
Blue Ridge	7,600	6,000
Boling	1,600	1,900
Damon Mound	1,800	2,200
Goose Creek	6,500	6,650
Hull	12,850	12,700
Humble	3,750	3,500
Orange County	3,700	3,400
Pierce Junction	11,900	12,000
Saratoga	1,000	1,000
Sour Lake	3,200	3,200
South Liberty	3,700	3,450
Spindle Top	38,600	36,200
West Columbia	7,500	7,550
Others	3,000	3,450
Total	113,150	110,400
Texas Total	711,500	706,900

OKLAHOMA

North Braman	2,700	2,850
South Braman	1,450	1,400
Blackwell	3,400	3,500
Hubbard	2,400	2,450
Thomas	1,100	1,050
Tonkawa	11,950	12,000
Garber	7,400	7,550
Burbank	27,000	27,500
Osage (outside Burbank)	26,500	26,900
Cushing	20,150	20,100
Yale Jennings	7,850	7,650
Davenport	1,750	1,750
Bristow Slick	20,700	20,800
North Okmulgee	14,500	14,550
Lyons Deaner	4,600	4,600
Cromwell	8,850	8,700
Papoose	4,000	3,950
Wewoka	5,450	5,450
Seminole	42,600	42,600
Bowlegs	51,350	50,200
Searight	11,650	11,750
Little River	127,300	131,150
Earlsboro	79,400	80,900
Duncan District	7,550	7,500
Graham	5,000	5,200
Fox	1,600	1,600
Healdton	13,750	13,750
Hewitt	9,300	9,500
Scholem Alechem	14,500	14,800
Pearson	2,100	2,150
St. Louis	126,150	125,500
Allen	23,400	23,450
Others	50,650	50,550
Total	738,050	743,350

CALIFORNIA

Santa Fe Springs	38,200	37,000
Long Beach	190,000	186,000
Huntington Beach	51,000	52,000
Torrance	16,000	16,000
Dominguez	10,000	10,500
Rosecrans	5,000	5,300
Inglewood	28,000	28,000
Midway-Sunset	74,000	74,000
Ventura Avenue	54,000	53,500
Seal Beach	24,500	24,500
Others	144,500	128,000
Total	635,200	615,800

KANSAS

Greenwood County	25,700	25,900
Florence-Covert	950	950
Peabody-Ebling	3,250	3,250
Eldorado-Towanda	13,000	13,000
Augusta-Fox Bush	3,250	3,250
Rainbow Bend	1,400	1,400
Russell	4,300	4,500
Churchill	8,200	8,350
Oxford	8,150	8,800
Others	29,000	28,900
Total	97,200	98,300

LOUISIANA

NORTH LOUISIANA

Homer	4,200	4,150
Haynesville	5,800	5,800
Caddo Light	9,000	9,050
Caddo Heavy	3,050	2,900
DeSoto-Red River	4,000	3,950
Elm Grove	550	550
Bellevue	850	850
Cotton Valley Light	650	650
Cotton Valley Heavy	3,600	3,800
Urania	6,300	6,350
Pleasant Hill	550	600
Totals North Louisiana	38,550	38,650

LOUISIANA GULF COAST

Bayou Boullion	700	800
East Hackberry	3,400	3,400
Edgerly	900	900
Evangeline	950	900
Lockport	3,800	3,600
Sorrento	700	800
Sulphur Dome	1,950	3,250
Sweet Lake	2,200	2,650
Vinton	4,200	3,100
Others	700	700
Total Louisiana Gulf Coast	19,500	20,100
Louisiana Total	58,050	58,750

ARKANSAS

El Dorado	5,200	5,250
Champagnolle	11,600	10,400
Smackover Light	7,150	7,250
Smackover Heavy	55,050	55,250
Stephens	1,050	1,050
Nevada	1,350	1,250
Lisbon	1,750	1,800
Others	100	100
Total	83,250	82,300

MOUNTAIN STATES

WYOMING

Salt Creek	40,200	39,300
Grass Creek	2,250	2,250
Elk Basin	1,050	950
Big Muddy	2,750	2,750
Lost Soldier	4,000	3,950
Rock River	2,500	2,600
Lance Creek	350	350
Oregon Basin	5,600	5,600
Others	5,200	5,300
Total	63,900	63,050

MONTANA

Cat Creek	1,500	1,550
Pondera	2,000	800
Sunburst	8,300	8,300
Others	550	550
Total	12,350	11,200

COLORADO

Moffats (Craig)	1,250	1,300
Fort Collins	2,250	2,200
Florence	1,300	1,100
Others	2,500	2,650
Total	7,300	7,250

NEW MEXICO

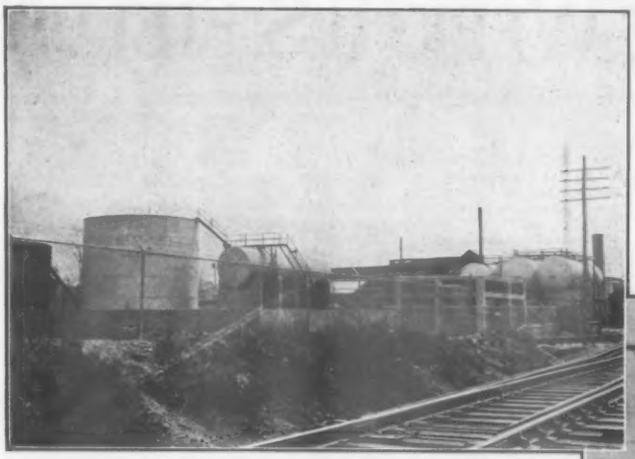
Table Mesa	...	200
Artesia	950	1,050
Hogback	500	500
Rattlesnake	300	1,050
Others	150	200
Total	1,900	3,000
Total Mountain States	85,450	84,500

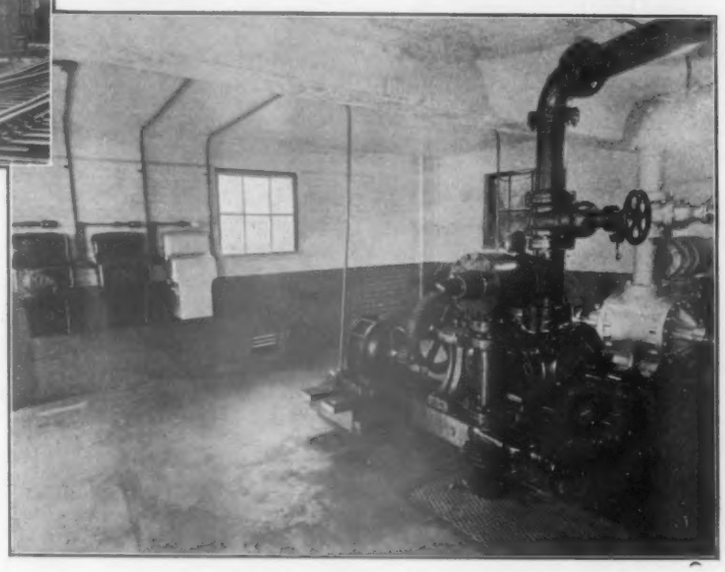
EASTERN STATES

(Including Ill., Ind., Ohio, W. Va., Pa., Ky., and N. Y.)	115,000	114,500

PRODUCTION SUMMARY

East of Rockies	1,803,050	1,804,100
Total United States	2,523,700	2,504,400





Where Motor Starters Must Be Flame-Proof use E C & M Oil-immersed Controllers

In this bulk distributing plant, the air of the pump room often becomes saturated with gasoline vapors. The engineers who designed the plant anticipated this condition and installed electrical equipment that is safe.

EC&M Flame-Proof Compensator

Three EC&M Automatic Compensators control the starting of the pump motors through vapor-proof push buttons. The Compensators are flame-proof as every contact, including those of the overload protective device, opens and closes under oil. There can be no open flashes to ignite the explosive fumes in the room.

EC&M Flame-Proof, Oil-immersed Motor Starters are supplied for controlling and protecting squirrel cage and synchronous motors. Many oil companies are standardizing on these starters for their motor drives.

Write for Bulletin 1042-F

THE ELECTRIC CONTROLLER & MFG. CO.

NEW YORK-50 CHURCH ST. **CLEVELAND, OHIO** PHILADELPHIA-WITHERSPOON BLDG.
CHICAGO-CONWAY BLDG. HOUSTON-1006 WASHINGTON AVE. PITTSBURGH-OLIVER BLDG.
DETROIT-DIME BANK BLDG. LOS ANGELES-912 E. THIRD ST. SAN FRANCISCO-CALL BUILDING
BIRMINGHAM-BROWN-MARX BLDG. SALT LAKE CITY-228 SO. W. TEMPLE MONTREAL-DRUMMOND BLDG.
CINCINNATI-1ST NATIONAL BANK BLDG. TORONTO-REFORD BLDG. TULSA-217 E. ARCHER ST.

Say you saw it in The OIL WEEKLY

COMPLETIONS FOR PAST WEEK IN U.S. FIELDS

SUMMARIZED REVIEW OF FIELD RESULTS

State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Production This Week	Initial Production Last Week
Arkansas	13	1	2	..	2	..	9	1	80	...
California	14	8	13	8	..	..	1	..	15,150	3,125
Illinois	4	4	2	2	1	..	1	2	51	70
Indiana	..	14	..	4	..	5	..	5	...	90
Kansas	14	11	5	2	1	1	8	8	880	800
Kentucky	25	30	21	16	1	1	3	13	689	685
Louisiana	13	25	1	7	5	6	7	12	25	2,385
Michigan	..	8	..	4	..	2	..	2	...	1,710
New York	16	19	14	18	..	1	2	..	33	76
Ohio	43	52	16	19	18	24	9	9	233	614
Oklahoma	73	64	42	38	10	6	21	20	22,664	23,229
Pennsylvania	84	69	76	55	6	7	2	7	325	204
Texas	141	173	71	112	8	8	60	53	38,840	106,242
West Virginia	21	19	4	5	14	11	3	3	20	21
Total	461	497	267	290	66	72	126	135	78,990	139,224
Increase this week	..	..	..	..	..	..	..	..	...	...
Decrease this week	36	..	23	..	6	..	9	..	60,234	...

ARKANSAS

Company, Well and Location	Initial Production Bbls.	Depth
NEVADA COUNTY—		
Humble O. & R. Co., Groves A-5, 1-14-21	50	1117
UNION COUNTY—		
O. W. Estes, Rowland 5, 14-17-14	*	3302
Skelly Oil Co., J. M. Gregory 1, 15-17-14 (second completion)	¶8½	2835
W. F. Simrall et al, Finley 1, 12-17-14 (second completion)	*	3251
Sun Co., Schmidt 3, 16-17-14	*	3300
Magnolia Pet. Co., Carroll 5, 1-17-14	30	3018
Oil Well Corp., Kelly A-1, 9-17-14	¶40	2790
Root Refineries, E. F. Gregory 2, 10-17-14	*	2744
Joe Marr et al, Sloan 1, 14-17-15 (second completion)	*	3392
E. M. Jones et al, Stegall B-2, 10-18-14	*	2265

CALIFORNIA

Company, Well and Location	Initial Production Bbls.	Depth
ATHENS-ROSECORNS—		
Cpyress Pet. Co., M. & M. 1, wo	500	6035
FRUITVALE—		
Pacific Eastern Production Co., B-5, 21-29-27	2600	3920
LONG BEACH—		
Delaney Pet. Corp., Boughter 1	3900	5985
E. H. Edwards, Long and Paulen 1	200	6960
Painted Hills Oil Co., Leeper 2	100	6640
Richfield Oil Co., Drake 1	1000	6255
Shell Co., Andrews 7	500	7650
Dobyns 6	1250	7695
MIDWAY-SUNSET—		
Republic Pet. Co., No. 31, 8-32-23	1800	2920
Standard Oil Co., No. 53, 29-31-24	300	4707
MT. POSO—		
Lindsay Oil Co., No. 1, 6-28-29	500	1670
RICHFIELD—		
Union Oil Co., Mullen 1	1000	4410
SEAL BEACH—		
Marland Oil Co., Selover 4, wo	1500	5440

KANSAS

Company, Well and Location	Initial Production Bbls.	Depth
BARTON COUNTY—		
Everett & Wiley, Ward 1	*	3940
BUTLER COUNTY—		
Davis & Hazlett, Lewis 8	120	3167
Empire O. & R. Co., Hutchinson "B" 3	300	2747
Wichita Pet. Co., Orban 5	150	2423
A. M. Landon, Palmer 1	*	3200
Garden et al, Sluss "A" 5	*	2746
Empire O. & R. Co. & LaRobb, Sluss 4	*	2764
Connell et al, Brainerd 1	*	3203
COWLEY COUNTY—		
Roxana, Gally 1, owdd	*	2220
Shawver et al, Cook 1	*	2890
ELK COUNTY—		
Wilson Jones et al, Walker 2	30	1630
MARION COUNTY—		
T. C. Johnson, McCoy 2	*	2349
McPHERSON COUNTY—		
Merriman, Reeves et al, Anderson 2	¶13½	2951

OKLAHOMA

Company, Well and Location	Initial Production Bbls.	Depth
Mid-Kansas O. & Gas Co., Larsen 1	280	2979
CARTER COUNTY—		
Magnolia's Powers 1	45	4125
Lewis 5	185	2606
Max Westheimer's Dixon 5	45	2952
COTTON COUNTY—		
L. E. Bennett's Glesner 1	*	2307
CREEK COUNTY—		
Flynn & Morgan's Har-Lar-Char 1-A	¶8	1090
Skelly's Fife 17	120	3908
Roxanas' Byrd 2	60	3831
Magnolia's Vance 31	5	2552
Roxana's Gilcrease 1	¶2	1789
Magnolia's Jones 3	*	3700
GRADY COUNTY—		
Magnolia's Smith 3	¶31	1789
HUGHES COUNTY—		
T. B. Slick's Epperly 1	*	4670
JEFFERSON COUNTY—		
Gypsy's Busby 6	15	777
Birdwell Oil Co.'s Spring 7	44	1726
Birdwell et al's Seay 1	*	2105
Amerada's Emerson 1	*	4516
KAY COUNTY—		
Northern Counties Gas Co.'s Jennings 1	¶4	2433
KIOWA COUNTY—		
Alexander et al, Fuqua 1	30	439
Fuqua 2	*	502
MARSHALL COUNTY—		
E. L. Smith Oil Co.'s Null 6	30	672
MUSKOGEE COUNTY—		
Durham & Smith's Smith 1	¶8	768
A. Tillman, Callahan 2-A	¶½	691
OKFUSKEE COUNTY—		
Devonian Oil Co.'s Fier 3	55	2039
Atlantic's Simmer 3	300	2040
OKMULGEE COUNTY—		
Moffett & Buckles' Grayson 6	¶½	1293
J. E. Wallace's Golbert 11	25	1022
J. P. Flannigan's Brown 1	35	1725
F. Smith's Summers 1-A	*	702
Iron Mountain Oil Co.'s Thornsberry 12	*	1989
Blake & Keeney's Anderson 2	*	724
Winemiller Corp.'s Escoe 1	*	3009
OSAGE COUNTY—		
Devonian Oil Co.'s No. 1	35	2305
I. T. I. O. Co.'s No. 400	¶2½	1934
Wm. D. Gray Oil Co.'s 2	560	2708
Presbury et al's 1	*	1125
Osage Gas Producers' 392	*	1607
Marland et al's 10	*	585
PAYNE COUNTY—		
Empire's Minnick 1	20	3486
W. K. Mote et al's Lamson 1	45	3700
PAWNEE COUNTY—		
Producers Consolidated Oil Co.'s George 12	15	2561
PONTOTOC COUNTY—		
Westheimer & Daube's Wade 4	400	2616
Ramsey Bros., Whitney 1	747	2632
Louisiana O. R. Corp.'s Perry 15	725	2650
C. B. Shaffer's Yoakum 9	50	2560

Company, Well and Location	Initial Production Bbls.	Depth
McCulloch Oil Co.'s Chisholm 1	*	3775
Belonie & Laskay's Crabtree 1	*	2200
POTTAWATOMIE COUNTY—		
Roxana's Stahl 1	75	4253
Mid-Kansas' Lunay 1	415	4444
Gesselman	2110	4292
Independent's Blandin 1	1280	4285
Youts 7	2705	4107
Magnolia's Youts 3	2812	4280
Youts 1	2808	4314
Fyke 1	741	4175
Yants 2	676	4221
Gypsy's Dodson 1	1420	4276
SEMINOLE COUNTY—		
Mid-Continent's Harjo 1, owdd	¶30	2683
Pure's Cotcha 8	985	4343
Cotcha 9	384	4570
Harjo 4	779	4361
Sinclair's Pompey 1	685	4475
Independent's Tewee 6	605	4443
Carter's Wilson 2	55	4350
Blackwell O. & G. Co.'s Baker 2	330	4318
Roxana's Whitney 1	*	3378
T. B. Slick's Williams 6	*	1556
Williams 7	*	4508
Willams 10	*	2545
STEPHENS COUNTY—		
Magnolia's Bell 3	118	2964
Harmon 1	90	3250
Pace et al's Brown 1	*	2305
WAGONER COUNTY—		
Sheridan Oil Co.'s Lewis 1	¶2	1108
J. C. Carlson et al's Barnett 4	*	1050

TEXAS

TEXAS PANHANDLE

Company, Well and Location	Initial Production Bbls.	Depth
GRAY COUNTY—		
J. J. Perkins & Cullum, G. H. Saunders 1	¶37	2900
Roxana Pet. Corp., J. W. Lester 1	270	2515
The Texas Co., A. Chapman 4-A	*	2995
HEMPHILL COUNTY—		
Gageby Oil Co., Burnell 1	*	700
HUTCHINSON COUNTY—		
Sand Creek Oil Co., C. H. Jasper 2	150	3148
POTTER COUNTY—		
Canadian River Gas Co., W. H. Bush 1-B	¶2	3687
WHEELER COUNTY—		
Canadian River Oil Co., Williams-Laycock 1	¶42	1960
Consolidated Gas & Utilities Co., Ackley 1-A	¶53	1925

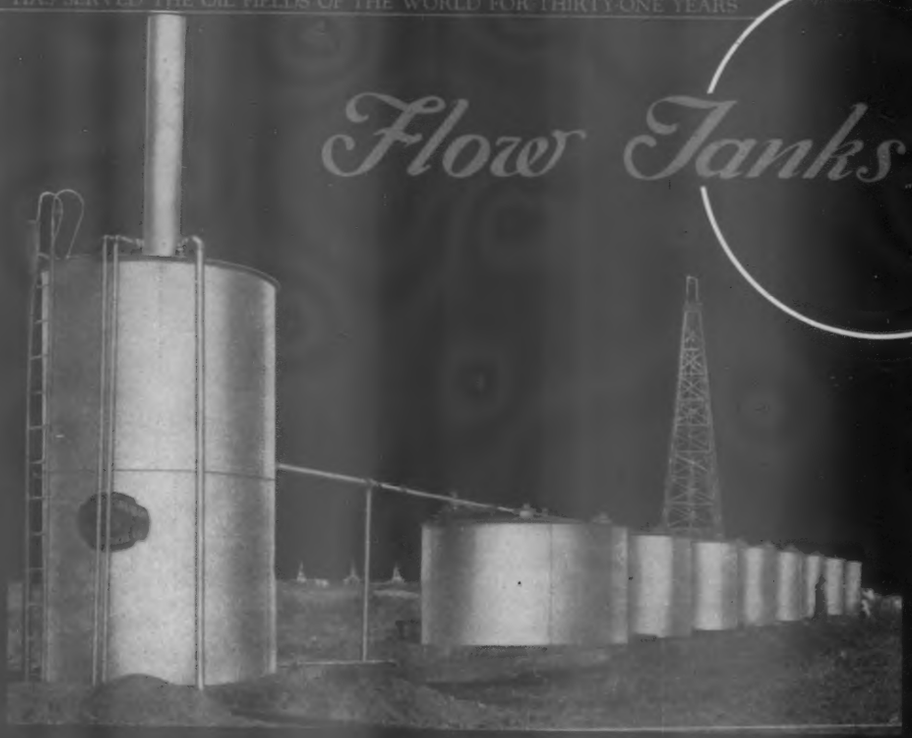
WEST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
HOWARD COUNTY—		
Amerada Pet. Corp., Roberts 1	4300	2978
Cosden & Co., Inc., Roberts 4-A	2000	3073
Roberts 1-E	*	3053
Magnolia Pet. Co., Roberts 10	915	2977
Marland Prod. Co., Clay 9-A	45	1792
Clay 2-G	35	1803
Mid-West Explo. Co., Clay 2-A	¶½-125	1789
Schermerhorn Oil Co., Roberts 2-A	3400	2978
Texon & Marland, Settles 2-A	2200	3029
JONES COUNTY—		
Snowden & McSweeney, Bickley 3	1500	2481
PECOS COUNTY—		
Humble O. & R. Co., Smith 10	535	1420
Mid-Kansas-Transcontinental, Yates 3-F	25	1290
Yates 4-G	25	1334
Roxana Pet. Corp., Tippett 1	5160	1477
UPTON COUNTY—		
Humble O. & R. Co., Ricker 9	*	2955
WINKLER COUNTY—		
Atlantic Oil Prod. Co., Grisham-Hunter 2-C	*	3220
Eastland Oil Co., Grisham-Hunter 2	400	3101
Independent O. & G. Co., Cowden 2	50	3084
Grisham-Hunter 3-B	*	3100
Marland Prod. Co., Hendrick 2-B	960	2838
C. W. Murchison-T. P. Lee et al, Hendrick 2-1	600	2875
Roxana & Texas Co., Hendrick 1-E	100	3220
Southern Crude & R. A. Westbrook, Hendrick 24-M-T-88	3600	2830
Hendrick 1-N-T-88	1200	2817
Hendrick 2-N-T-88	900	2868
Ida Hendrick 1-A-T-264	*	3179
Hendrick 1-R-T-88	¶50	2640

Parkersburg

HAS SERVED THE OIL FIELDS OF THE WORLD FOR THIRTY-ONE YEARS

Flow Tanks



SPECIALLY built and designed to meet the most exacting requirements, Parkersburg Flow Tanks have demonstrated their strength and ability to withstand the excessive vibrations present in handling extremely large volumes of gas and oil under heavy pressure.

For the release of excess vapors, equipment is furnished in accordance with the operator's special requirements.

A most satisfactory solution to the vent problem is found in the Parkersburg Flow Tank Stack, through the use of pressure valves of the "butterfly" type.

The stack is 18 inches in diameter, 7 feet long, and is completely equipped with guy wire and lugs for connection to tank deck.

For complete and detailed information on Parkersburg Flow Tanks, Bolted Steel Tanks, and Vapor Tight Equipment, send for Section "S," Catalog 26.

The
PARKERSBURG RIG & REEL COMPANY
Executive Offices & Main Plant, Parkersburg, W. Va., U. S. A.
Sales Offices Maintained and Stocks Carried in Every Producing Field

Parkersburg Products

Steel Derricks & Steel Crown Blocks ■	Rig Irons (A.P.I. Standard) ■
Chain Driven Sand Reels & Bailing Reels ■	Portable Drilling Machines (Wood & All-Steel) ■
Steel Wheels ■	Bolted Steel Tanks ■
All-Steel Standard Rigs ■	Miscellaneous Drilling Equipment ■

Check the equipment in which you are interested, tear out and return this page, with your name and address, to us and we will send you complete information on the items checked.

PARKERSBURG EQUIPMENT THE STANDARD FOR COMPARISON THE WORLD OVER

Say you saw it in The OIL WEEKLY

CENTRAL WEST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
BROWN COUNTY—		
Amerada Pet. Corp. Wise 2	*	715
Cranfill & Reynolds, Eubanks 14	50	1231
Humble O. & R. Co., Allen 5-A	40	1130
Byler 6	30	1327
Moore Oil Corp., Williams 3,	¶1½	1238
Stanley et al, Lewis 1	*	1343
Valley Oil Co., Teston 11	*	1210
Wakefield et al, Wolldridge 1	*	1199
Young Bros.-Alexander & Woodley Pet. Co., Butler 2	*	1308
Armstrong 5	45	1205
Hickman 13	†	520
CALLAHAN COUNTY—		
Reiter-Foster Oil Corp., Hatchett 1	25	365
COLEMAN COUNTY—		
Barnsdall Oil Co., Sackett 1	*	2304
Cunningham et al, Jennings 8-B	25	1194
Duncan et al, Gray 1	*	1988
Levi Smith et al, Brenke 2	*	2960
Texas National Oil Co., Stevens 2	*	2124
Williams Pet. Co., West 1	*	3400
EASTLAND COUNTY—		
Moore et al, Pritchard 2	*	1562
States Oil Corp., Jackson 1	*	1500
ERATH COUNTY—		
Eastland Oil Co., Smith 1	¶23	3292
PARKER COUNTY—		
Lynch et al, McCracken 1	*	590
SHACKELFORD COUNTY—		
Mid-Sun Oil Corp., Nail 1	*	1584
Ohio-Texas Oil Co., Matthews 8	600	1127
Welsh et al, Harvey 1	*	1715
Wichita Prod. Co., Myer 4	5	1008
STEPHENS COUNTY—		
Tidal Oil Co., Jones 2	*	3952

NORTH TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
ARCHER COUNTY—		
Brown & Lickey, Wallace 2	*	1118
Consolidated Oil Co., Neimeyer 3	*	1440
Empire G. & F. Co., Wilson 1-H	*	1510
Freeman & Grebin, Hennig 1	*	1502
Gholke & Humble O. & R. Co., Wilson 1	*	1600
C. W. Gilliland et al, Neimeyer 7	125	1409
Roach 2	10	1266
Harry Hines et al, Wilson 1	*	1605
D. O. Johnson et al, Wilson 5-A	*	1581
Madden & Hunt, Richardson 7	†	1317
Richardson 8	60	1315
Richardson 10	*	1365
Marland & Consolidated Oil Co., Ward 1-B	*	1038
Panhandle Ref. Co. et al, Prideaux 6-C	8	670
Prairie O. & G. Co., Richardson 1-E	70	1300
Shappell Oil Co., Jackson 42	10	1795
The Texas Co., Hayter 7	20	1430
Hayter 8	25	1417
Texas Co. & Harry Hines, Wilson 1	*	1554
Underwood Drl. Co. et al, Ward 6	*	1085
COOKE COUNTY—		
W. J. Green & Skelly Oil Co., Ball 1	8	759
ELECTRA—		
Harry Hines et al, Waggoner Bros. 9	100	1404
Roy F. Wright et al, Jennings 2	†	500
K-M-A AND IOWA PARK—		
Comac Drilling Co.,	*	1853
Magnolia Petroleum Co., S. L. C. Warren 12	15	786
W. B. Omohundro et al, Pace 17	90	1231
Panhandle Ref. Co., et al, W. H. Barton 1	*	1805
MONTAGUE COUNTY—		
Pure Oil Co., Loy 9	15	810
THROCKMORTON COUNTY—		
Erin Prod. Co., Davis 1	*	1504
Reiter-Foster Oil Corp., Parrott 1	*	1326
WILBARGER COUNTY—		
Burton et al, Waggoner 1-E	*	1930
Consolidated Oil Co., Waggoner 4-C	70	1895
Easter Oil Corp., Waggoner 1-A	400	2338
Fain-McGaha Oil Corp., Waggoner 15-S	750	2423
Golding-Cochran et al, Waggoner 2-G	110	2443
C. F. Kolp et al, Waggoner 1-E	*	2750
Robertson et al, Waggoner 1	165	1906
Roxana Pet. Corp., Milner 1	*	2020
Waggoner Ref. Co., Waggoner 4-I	1500	2406
YOUNG COUNTY—		
Allday Oil Corp. & Carter, Johnson 6-A	40	598
Johnston et al, Spencer 1	*	895
Kennedy et al, Johnson 4	35	508
Kleiner et al, Davis 6	*	568
Lindsley & Bollin, Graham 3	25	2081
Lynch & Whitehill, Johnson 2	15	525
Petroleum Prod. Co., Hennig 6	35	1099
Parrish 1-B	*	1135
Prairie O. & G. Co., Campbell 2	20	995
Reed et al, Casey 1	*	650
Riggs et al, Sweet 2	15	526
Sweet 3	4	600
Robert Oil Corp. & Atlantic, Hamilton 1	*	895
White et al, Fee 1	*	747

TEXAS GULF COAST

Company, Well and Location	Initial Production Bbls.	Depth
BATSON—		
Ada Belle Oil Co., Honeymoon 123.	5	470
BLUE RIDGE—		
Humphreys Oil Corp., West-Schenck 4	1200	3760
GOOSE CREEK—		
Gulf, Broggs 13 wo	*	3525
HIGH ISLAND—		
Gulf, Geo. E. Smith 7, wo	10	2700
ORANGE—		
Sun Co., Gunstream 4, wo	*	3965
Orange Pet. Co., M. Berwick 2, wo	30	3190
PIERCE JUNCTION—		
Shaw et al, Fitzsimmons C-2	750	4530
SARATOGA—		
Rio Bravo Oil Co., Jardit 85	*	1250
SOUR LAKE—		
Gilbert Oil Co., Fee 104	10	560
SOUTH LIBERTY—		
Liberty Pet. Co., Turner 1	80	1630
SPINDLE TOP—		
L. A. Painter, Rush, Ewing & Ring 1	*	5075

LOUISIANA

SOUTH LOUISIANA

Company, Well and Location	Initial Production Bbls.	Depth
EVANGELINE—		
Abshire-Bolyard Oil Co., Syndicate Fee 4	*	1785
Radcliff Oil Co., Martin 11, wo	*	1700
EDGERLY—		
Wilson-Broach, Wilson 2, wo	25	3485
LOCKPORT—		
Vacuum-Gulf, Frieberg & Wolf 3, wo	*	4850

NORTH LOUISIANA

Company, Well and Location	Initial Production Bbls.	Depth
BOSSIER PARISH—		
Ark. Nat. Gas Corp., Van Hoose A-7 31-16-11	¶12½	2445
Palmer Corp., Caplis 11, 26-16-12	¶3	1888
R. O. Roy, Caplis 1, 25-16-12	*	800
GRANT PARISH—		
Bailey & Beville, Swope 3, 17-9-1e	*	1598
MOREHOUSE PARISH—		
Southern Carbon Co., Tensas Delta 6, 10-20-4e	¶25	2152
OUACHITA PARISH—		
Magnolia Pet. Co., Millsaps 2, 36-20-4e	¶20	2180
RICHLAND PARISH—		
Magnolia Pet. Co., J. Sartor 1, 16-16-6e	¶58	2445

EASTERN STATES

PENNSYLVANIA

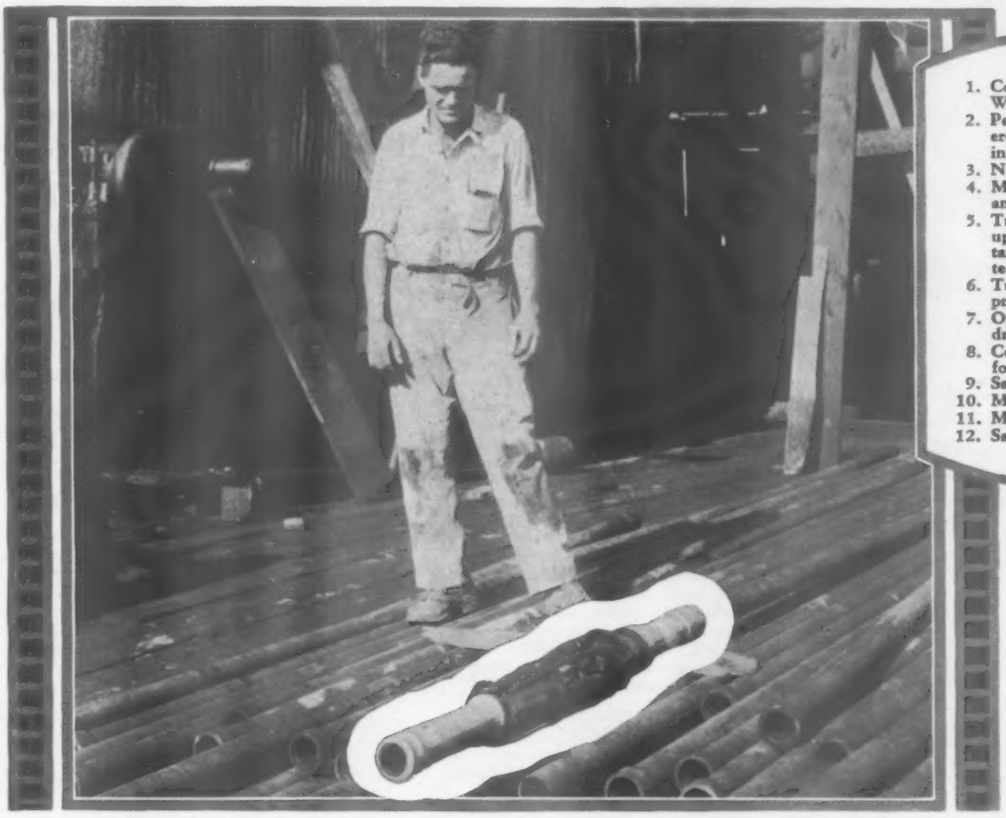
Company, Well and Location	Initial Production Bbls.	Depth
BRADFORD FIELD—		
South Penn Oil Co., Bingham 501 tr 24	3	
Bingham 576, tr 8	3	
Bingham 576, tr 9	7	
Bingham 399, tr 2	3	
Bingham 405, tr 2	3	
Bingham 533, tr 99	3	
Bingham 499, tr 2	2	
Bingham-Satterfield 140	3	
Bingham-Satterfield 141	2	
Hooker 28	2	
Newell 84	2	
Hamlin 122	3	
H. E. Smith 173	2	
Culbertson 77	3	
Riddle 4	3	
Redfield 10	5	
Newman & Co. 1	3	
Melvin 251	2	
Melvin 252	2	
Enterprise 2	3	
Enterprise 3	2	
Fee 85	5	
L. H. Smith & Son, Garlock 21	7	
Garlock 22	12	
Anna J. VanTine, VanTine 15	7	
VanTine 16	2	
Phoenix Oil Co., Kennedy-Clark 13	7	
Kennedy-Clark 14	7	
J. W. Kaufman, Rounds 23	2	
Rounds 24	5	
Davis Oil Co., Kuhn 8	5	
Kuhn 9	5	
Burns 6	4	
Mix Creek Oil Co., Mix Creek 41, 42, 43	2	
Mix Creek 42, 43, 44, 45	*	
Pressure Oil Co., Howard 13	2	
Howard 14	2	
Forest Oil Corp. drilled 25 holes all Pressure		
Wright & Saph, Bingham 394, tr 16	10	
D. T. Andrus & Co., Bingham 120	7	
T. H. Givin, Givin 22	5	
L. G. Dana, Taylor 3	4	
P. A. Oaks & Son, Bingham 590, tr 6	8	
T. B. Martin, Borden 2	4	
Pennsylvania Petroleum Co., Duke 31	5	
Kemper Oil Co., Kemper 2	5	
C. A. Duke, D. C. B. 15	7	
First National Bank, Keating 8	7	
McQuiston & Co., McQuiston 2	5	
Mohan & Grant, Bingham 425, tr 3	4	
F. E. Baldwin, Baldwin 11	4	
C. R. Bush & Co., Bush 1	4	
W. C. Kennedy Co., Kennedy 68	5	
D. W. Daly & Co., Bingham 369, tr 68	3	
Fitzgibbon & Wilson, Bingham 380, tr 90	3	
Associated Producers Co., Bingham 568, tr 14	3	
CLARION COUNTY		
Roy Edinger, Edinger 1	2	
Alum Rock Gas Co., Brosius 1	2	
A. N. Huling, Best 3	2	
GREENE COUNTY—		
J. B. Nuss & Co., Ellay Ray & Co. 2	55	
E. J. Sanders & Co., Harvey 1	¶½	
New Freeport Gas Co., Gump Heirs 1	¶1	3175
Milliken, Hoskenson & Co., Smith 1	¶¼	
Staggers Oil & Gas Co., Staggers 1	¶½	
Manufacturers Light & Heat Co., McClelland	¶1	
VENANGO COUNTY—		
Franklin Trust Co., Ridgeway 16	2	
E. Seidman, Graham 55	2	
Addie Myers, Myers 3	2	
Kapp Bros., Byers 2	2	
E. A. Burch & Co., Porter 101	2	
McCalmont & Co., McCalmont	2	
Emma Z. Hulin, Graham 9	2	
Taggart & Co., Clapp 73	2	
Z. T. Call, Call 24	2	
S. & G. Oil Co., Glass 2	¶½	
Lamberton & Co., Westlake 25	2	
CENTER-MIDDLE FIELD—		
R. Blanchard, No. 164, lot 4	*	
Zook & Sloan, No. 420, lot 1	2	
D. B. Whitehill, Wardwell 1	2	
South Penn Oil Co., No. 425, lot 1	2	
Barnard & Pequinot, O'Hara 1	2	
BUTLER COUNTY—		
G. D. Carpenter, Carpenter 8	2	
Ritzert Bros., Ritzert 2	2	
O. S. Shoup, Zinkham 2	2	
Daniel Dierker, Dierker 3	2	

NEW YORK

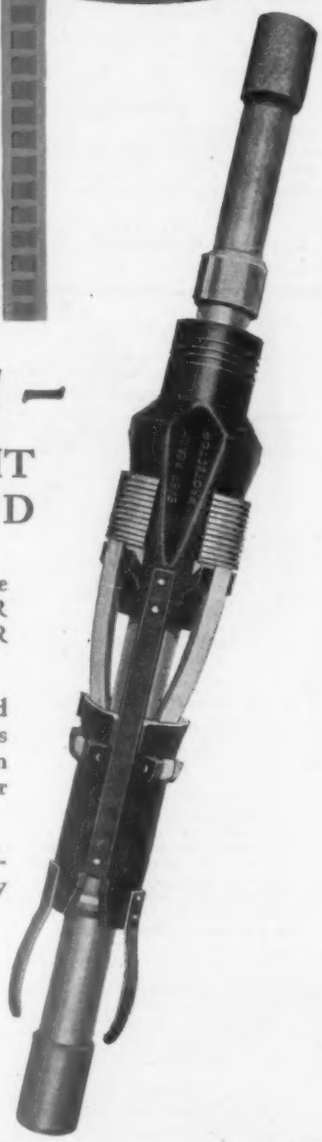
Company, Well and Location	Initial Production Bbls.	Depth
ALLEGANY COUNTY—		
LeSuer Oil Corp., LeSuer 39	2	
LeSuer 40	2	
L. E. Jordan, Clark 1	*	
Moore & Co., Moore 1	2	
G. W. Hooker & Co., Hooker 2	2	
F. H. Stephan, Stephan 2	3	
Colegrove Oil Co., Colegrove 2	3	
A. C. A. Oil Corp., A. C. A. 2	*	
F. L. Putnam & Co., Putnam 2	2	
G. A. Ramsbottom, Ramsbottom 2	2	
J. A. Bucher, Bucher 2	2	
John K. Cochran, Allen 4	4	
Reeland & Conklin, Reeland & Co. 2	2	
State Bank of Bolivar, Reid 25	3	
E. L. Sawyer, Sawyer 1	2	
C. M. Lippert & Co., Warters 5	2	

EVER READY PROTECTOR

12 POINT Protection



1. Complete Protection ALL-WAYS.
2. Perforated Pipe can be lowered or raised without tubing job.
3. No anchor necessary.
4. May be placed in string at any desired point.
5. Tubing may be free to move up and down limited distance without disturbing protector, or
6. Tubing may be carried on protector.
7. Operator at all times controls drop of tubing.
8. Correct spot for pumping found in one trip.
9. Saves tubing.
10. Minimizes sand agitation.
11. Maximum production.
12. Saves pulling costs.



Keep these advantages in mind –

BEFORE YOU SEND TUBING OUT OF SIGHT HUNDREDS OF FEET UNDERGROUND

Hundreds of the most successful operating companies throughout the world have evidenced their confidence in the ability of the EVER READY PROTECTOR to insure complete tubing protection at all times, by specifying an EVER READY for every well on the lease.

To gain such widespread approval, the EVER READY PROTECTOR proved itself to be MORE than a mere means of protecting tubing. It offers advantages no other device has made possible—"12 point protection" means freedom from grief on tubing jobs under all conditions—whether installing in a flowing well, or against gas pressure, or running in crooked hole.

EVER READY PROTECTORS CAN BE FURNISHED WITH GALVANIZED FINISH at a small additional cost. For complete information call on any Smith Separator Company representative, or write for Bulletin.

SMITH SEPARATOR COMPANY

Tulsa Okla.

HOUSTON FORT WORTH SHREVEPORT LOS ANGELES NEW YORK

WEST VIRGINIA

Company, Well and Location	Initial Production Bbls.	Depth
CALHOUN COUNTY—		
Euclid O. & G. Co., Noard 3	3	....
W. S. Dailey & Son, Davis 1	5	....
Hope Nat. Gas Co., Hardman 1	¶1½	....
Gerwig O. & G. Co., Hardman 1	¶1½	....
W. H. Bickel, Hicks 1	¶1¼	....
Great Elk Oil Co., Bachman 20	3	....
Park Bowser, Mathess 11	¶1¼	....
W. S. Dailey & Co., White 1	¶1	....
RITCHIE COUNTY—		
Bickel & Co., Dotson 1	¶¼	....
R. C. Brand, Kemp 1	¶¼	....
Bachelor & Co., Davis 1	¶¼	....
WIRT COUNTY—		
Liberty Supply Co., Becker 12	2	....
Smith Oil Co., Smith 6	¶¼	....
LINCOLN COUNTY—		
Empire State Gas Co., Courts 7	¶½	....
United Fuel Gas Co., Horse Creek Land Co. 9	¶½	....
ROANE COUNTY—		
M. E. Harsman & Co., Simmons 1	*	....
Chartiers Oil Co., Palmer 1	*	....
DODDRIDGE COUNTY—		
Charles Piggott & Co., Hiley 1	10	....
BOONE COUNTY—		
United Fuel Gas Co., Horse Creek Land 1	¶½	....
LEWIS COUNTY—		
Carnegie Natural Gas Co., Jackson 4	¶1½	....
TYLER COUNTY—		
Baker Oil Co. & Co., Shuman 2	¶¼	....
GILMER COUNTY—		
F. G. Bish & Co., Heckert 1	*	....

KENTUCKY

Company, Well and Location	Initial Production Bbls.	Depth
OHIO COUNTY—		
James C. Ellis, Gossett 6	100	....
Weller 34	50	....
Farmer 3	25	....
Farmer 4	50	....
Mecca Oil Co., Cora Wells 17	75	....
D. T. Bolling, Westerfield 2	20	....
Wood Oil Co., Ins., Nattox 2	20	....
Cumberland Petroleum Co., Hamilton 15	100	....
Whitehill & Reich, Ambrose 2	10	....
Porter, Evans & Co., Whitehouse 1	*	400
Arnold & Co., Coopage 1	*	380
Vickers & Co., Willoughby 1	gas	....
DAVIESS COUNTY—		
The Petroleum Co., Burns 2	60	....
Young, Goldburg & Co., Purcell 1	50	....
M. B. French, Hickory School, lot 1	30	....
Imperial Oil & Gas Dev. Co., Hayden 2	25	....
Leeper Oil Co., Barnett 5	10	....
M. B. French & Co., Hinton 3	5	....
McMahon & Co., Fuqua 2	*	....
WARREN COUNTY—		
Thompson Oil Co., McLemore 9	6	1065
John Boyd, Covington 5	1	360
ALLEN COUNTY—		
J. D. White, Williams 5	5	360
Harley & Coatsworth, Welch 2	2	400

ABREVIATIONS

NOTE—The following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million feet of gas; abn—abandoned; bbls—barrels; b.s.—basic sediment; cas casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; lcn—location; m—milling; n, s, e, w—north, south, east, west; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudding; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—underreaming; wo—workover; wosr—waiting on standard rig.

Second Revised Edition

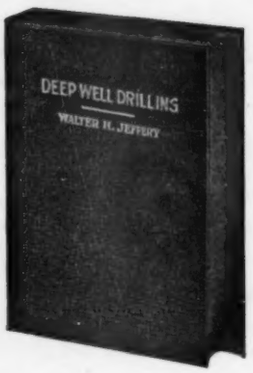
DEEP WELL DRILLING

By WALTER H. JEFFERY

Completely Revised and Brought Down to Date

One Hundred Thirty-One Pages New Matter Added

A comprehensive handbook covering in detail modern practices of well drilling by the standard or cable tool and the hydraulic rotary system.



During the few years that have elapsed since the publication of the first edition of "Deep Well Drilling" there have been so many improvements in well drilling methods and equipment that it was found necessary to practically rewrite the book for this second edition. This book furnishes complete information on drilling and the use of tools and equipment necessary to complete wells efficiently.

This book is a reference work for the engineer and the student and a handbook for the practical driller. Written by a man who has familiarized himself with his subject through a lifetime association with it. 662 pages, illustrated, flexible binding. Price Postpaid $4.00.

Send Check to

The GULF PUBLISHING COMPANY

P. O. BOX 1307, HOUSTON, TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
WEBSTER COUNTY—		
E. M. Wilson & Co., Curry 1	25	....
HOPKINS COUNTY—		
Copper Flash Oil Co., Unknown 19	20	....

SOUTHEASTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
WASHINGTON COUNTY—		
Charles Fickeyes & Co., Schramm 4	5	507
Shay McMullen, Creighton 2	15	1360
Ohio Fuel Gas Co., Wynn 1	¶¼	1927
Leeper 2	¶¼	1151
MORGAN COUNTY—		
Bauman & Co., Penrose 5	¶¼	1710
Hollowell & Co., Syphers 4	¶½	1480
Henning Bros., Williams 1	¶¼	1491
NOBLE COUNTY—		
J. R. Yearian & Co., Crum 1	4	....
C. E. Stephens & Co., Heisel 1	10	781

CENTRAL OHIO

Company, Well and Location	Initial Production Bbls.	Depth
ATHENS COUNTY—		
Ohio Fuel Gas Co., Black Diamond Coal Co. 9	dry	1777
Logan Gas Co., Snodgrass 1	¶½	1056
Orndorff & Co., Luis Dean 1	¶¼	1432
Fox & Mosure, Robt. Bean 3	6	145
Stewart & Ross, Day 1	¶½	890
HOLMES COUNTY—		
East Ohio Gas Co., Sowash 6	75	....
Bucy 1	¶1	....
William Barker, Mosher 2	2	....
The Kemrow Co., Freck 1	*	3394
LICKING COUNTY—		
Brown & Co., Chapin 8	7	....
Edward H. Everette Gas Co., Shirlay 4	*	....
Heisey Gas Co., Dustheimer 1	*	2752
H. C. Farmer, Lothes 1	*	....
ASHLAND COUNTY—		
Robinson & Co., Strine 5	3	....
Ohio Fuel Gas Co., Fritz 1	¶2	2901
Coble 1	¶¼	....
Cockley 1	*	....
MEIGS COUNTY—		
Tyree & Co., Holter 1	3	1837
Pure Oil Co., Mitchell 1	1	1860
Joseph McGee & Co., Carnahan 4	*	....
JACKSON COUNTY—		
Ohio Fuel Gas Co., House 1	¶1½	2543
Hines 1	*	2736
Wittmer Oil & Gas Co., Kimberling 2	¶2½	2658
HOCKING COUNTY—		
Graystone Oil Co., Miller 5	30	....
Griffin Producing Co., Lowe 3	32	2932
SUMMITT COUNTY—		
Pittsburg Plate Glass Co., Rose 1	¶3	....
F. A. Brendall & Co., Spangler 1	¶1¼	....
KNOX COUNTY—		
East Ohio Gas Co., Whitney 3	¶1	....
Harry Perkins, Durbin 2	*	....
COSHOCTON COUNTY—		
The Pure Oil Co., Anderson 2	22	....
PERRY COUNTY—		
Ralston & Maynard, McCarty 16	10	....
CAYAHOGA COUNTY—		
McFrederick & Co., Bariswell 1	10	....
VINTON COUNTY—		
Co-operative Oil Co., Beckley 8	4	1154
MUSKINGUM COUNTY—		
Mid-East Oil Co., Shaw 2	¶2	....
LORAIN COUNTY—		
Ohio Fuel Gas Co., Columbus 1	¶½	....
WAYNE COUNTY—		
Harmon & George, Schmidt 1	*	....

ILLINOIS

Company, Well and Location	Initial Production Bbls.	Depth
CRAWFORD COUNTY—		
J. T. Bolinger, Evans 1	50	1000
Karns, Schronegas & Co., Musgrave 2	1	1123
Dinsmore Oil Co., Best 1	¶¼	1028
Toomey & McGuigan, Parker 7	*	1020

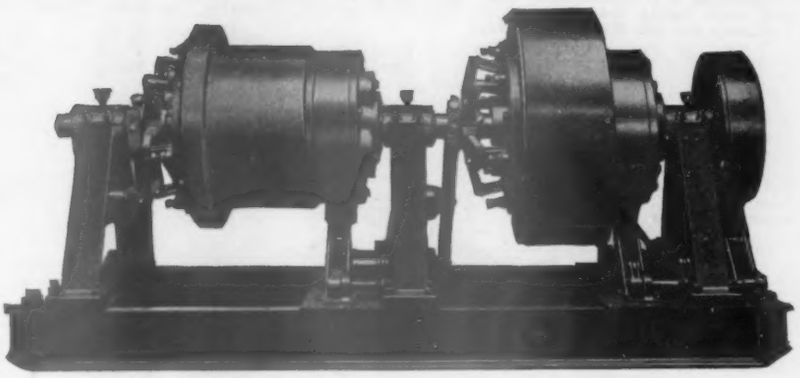
Empire Runs

Bartlesville, Okla.—Empire Pipe Line Company received a daily average of 35,060 barrels during September, or 1,051,829 barrels. Deliveries of the company during the month totaled 1,056,498 barrels, or a daily average of 35,216 barrels. Stocks on hand at the close of September amounted to 3,649,650 barrels.

FRANKLIN VALVELESS
OIL AND GAS ENGINES

New! FRANKLIN REVERSE CLUTCHES

Type 2-SD
---*for Cable Tool or Rotary Drilling*



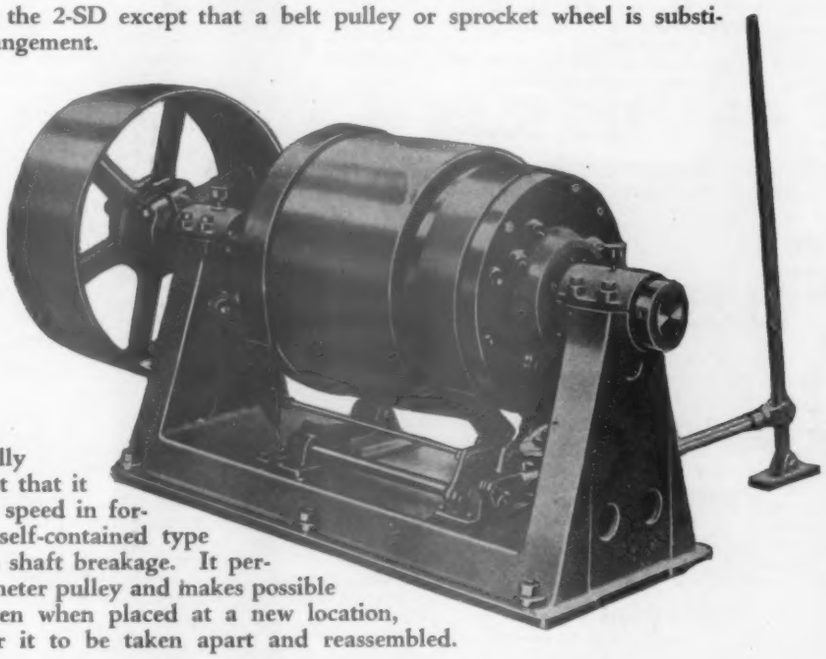
The new Franklin 2-SD Reverse Clutch is so designed and constructed that it is belt driven from a pulley on the engine—a radical departure from the usual method of being bolted to a flange on the fly wheel. It has two speeds in either forward or reverse motion. The changing of gears can be made at any time, regardless of speed or load, by simply operating a hand lever in the derrick. A neutral brake is controlled by the same hand lever used in reversing and is always set when this lever is in mid-position.

All of which make the 2-SD especially useful for cable tool or rotary drilling.

TYPE SD

This is exactly the same as the 2-SD except that a belt pulley or sprocket wheel is substituted for the two speed arrangement.

Type BG
---*for Cable Drilling or Pumping*



The BG Clutch is practically the same as the 2-SD except that it is lighter and has only one speed in forward or reverse. It is a self-contained type whose construction prevents shaft breakage. It permits the use of a larger diameter pulley and makes possible a slower clutch speed. Even when placed at a new location, there's never any need for it to be taken apart and reassembled.

Such a clutch is particularly well adapted for cable tool drilling or pumping.

Let us send you complete information about Franklin Reverse Clutches.

FRANKLIN VALVELESS ENGINE COMPANY

Franklin, Pa.

Distributed by

OIL WELL SUPPLY COMPANY

Branches in All Oil Fields

PERMITS GRANTED FOR NEW WELLS

WEEKLY COMPARISON OF NEW WELLS

Following is a condensed table giving a comparison of permits or locations made for new wells during the past year in Kansas, Oklahoma, Arkansas, Louisiana, Texas, California and the Mountain States:

	Week ending Oct. 27	Previous week	Total this month	Total this year	This week last year	This month 1927	Total same date 1927	Year total 1927
Arkansas	7	5	12	289	4	18	294	329
California	20	25	95	999	16	48	1,027	1,226
Louisiana	11	11	47	570	7	40	597	812
Kansas	9	13	53	868	12	41	793	972
Oklahoma	76	66	310	3,018	66	197	3,287	3,702
Texas	164	126	632	6,690	114	470	7,639	8,665
Mountain States	..	..	..	..	..	24	386	494
Total	287	246	1,149	12,438	219	838	14,023	16,149

ARKANSAS

NEVADA COUNTY—Humble O. & R. Co., E. W. Grove, B-7, 990 ft e swc Section 1-14-21.

OUACHITA COUNTY—J. E. Crosbie, C. Primm 1, 300 ft n, 250 ft w se cor ne¼ se¼ 23-15-16.

UNION COUNTY—Edwin M. Jones, J. F. Sample Co. 1, se¼ nw¼ 7-17-13. Ohio Oil Co., W. R. Crain 9, se¼ sw¼ 1-17-14. Magnolia Pet. Co., G. C. Dumas 2, sw¼ ne¼ 11-17-14. Garrett-Modisett Drilling Co., Murphy Land Co. 1, se¼ sw¼ 30-17-17. Ohio Oil Co., C. B. Nash Acct 2, No. 1 sw¼ se¼ 6-17-13.

LOUISIANA

BOSSIER PARISH—Ark. Nat. Gas Corp., Shreveport, Horton-Prince 5, 30-16n-11w, 1980 ft n and 380 ft e of sw c se.

CADDO PARISH—Shreveport Oil Corp. & Ross Pet. Co., Shreveport, Hutchinson 1, 32-21n-15w, approx. 750 ft n and 150 w of se c se nw. Woodley Pet. Co., Shreveport, Whitehurst 2, T 16n, R 12w, 23, 850 ft e and 2783 ft n of sw c Twp. 16.

MOREHOUSE PARISH — Stovall Drilling Co., Monroe, L. Ethridge 1, 22-20n-4e, 4568 ft e and 231 ft n of swc Southern Carbon Co., Monroe, Tensas Delta 7, 22-21n-4e, 1280 ft n and 2010 ft e of swc. United Carbon Co., Monroe, Mrs. E. Wright 1, 10-20n-4e, 330 ft e and 660 ft n of swc se.

OUACHITA PARISH—United Oil & Natl. Gas Prod. Co., Monroe, Stevens 1, 26-20n-4e, 924 ft n and 380 ft e of center of sec.

RED RIVER PARISH—Odell & Lawton, Shreveport, J. S. Richardson 4, 25-13n-11w, 2340 ft w and 2700 ft s of ne c se of Sec. 24, in Sec. 25.

TANGIPAHOA PARISH — Tanli Oil Co., Inc,. Amite, Kemp Weinberger 2, 8-4s-7e, 6.00 chains n and 11.50 chains w of sec of Fractional Sec. 8.

WEBSTER PARISH — Magnolia Pet. Co., Shreveport, A. J. McCook 1, 22-21n-10w, 660 ft s and 660 ft e of nw c sw sw. Magnolia Pet. Co., Shreveport, N. Scroggins 1, 1-22n-11w, 990 ft s and 330 ft e of nwc.

CALIFORNIA

ELWOOD—Ted Martin, No. 1, (-)-4-28.

KERN COUNTY—Pacific Eastern Prod. Co., 6-KCL-B, 22-29-27.

LONG BEACH—Rio Grande Oil Co., R. L. M. 2, 28-4-12. Delaney Pet. Corp., Wellington 3, 19-4-12.

MIDWAY—North American Oil Cons., No. 22, 32-31-24; No. 21, 32-31-24. Standard Oil Co., No. 14, 29-31-24. Standard Oil Co., No. 27, 7-32-24.

MT. POSO—General Pet. Corp., Glide 21, 21-27-28. Petroleum Securities Co., Glide 4, 21-27-28.

SANTA FE SPRINGS—Shell Co., G. H. N. 19, 31-2-11; Slusher 17, 6-3-11. Rohde Investment Co., Rohde 2, 5-3-11. Rio Grande Oil Co., Community 2, 6-3-11.

SOUTH MOUNTAIN—Union Oil Co., Crane 4, 13-3-21.

TEMBLOR—Elmer Co., No. 1, 2-29-20.

VENTURA—Shell Co., Taylor 32, 28-3-23. Associated Oil Co., Lloyd 65, 27-3-23; Lloyd 71, 27-3-23; Hartman 9, 22-3-23.

KANSAS

RUSSELL COUNTY—Keys Pet. Co.'s Mermis 11, ne sw ne 32-13-15w; Mermis 7, sw ne ne 32-13-15w. Vickers Pet. Co.'s Lukeman 1, (odd) sw se 11-9-16w.

SEDGWICK COUNTY—Reynolds & Haynes' Roll 1, sw nw ne 7-26-1e. Marlang's Goodrich 1, sw ne sw 16-25-1e. Connell et al's Gross 1, ne cor 27-25-1w.

SUMNER COUNTY—Marland's Peters 1, sw cor 30-34-2e. Washoma Oil Co.'s Bussard "B" 2, cnl ne ne sw 36-31-2e. Pryor, Lockhart and T. B. Slick's Russ 1, ne cor 35-31-2e.

OKLAHOMA

BECKHAM COUNTY—Sayre O. & R. Co.'s Davis 1, 1, sw nw 24-9-23w, owdd.

CARTER COUNTY—Sinclair's Dougherty 5, sw se ne 29-2s-3w. Magnolia's Tipton #1, se ne nw, 29-2s-33w.

COAL COUNTY—W. E. McGraw's Commerce Trust Co. 1, sw cor 12-1s-8e.

COMANCHE COUNTY—Turner & Long's Curtis 1, ne se 25-2n-10w.

CREEK COUNTY—W. M. Banks' Crider 2, (owdd) csl se nw, 31-17-12e. A. B. Ice et al's Johnson 1, nw se sw, 28-18-11e. Magnolia's Emarthla 5, ne sw, 5-16-8e. Shaffer O. & R. Co.'s Jones 1, sw ne, 26-18-7e; Jones 2, se nw, 26-18-7e. Magnolia's Coker 33, csl nw 16-18-7e. Shaffer O. & R. Co.'s Kelly 1, nw ne 7-19-7e. Silurian Oil Co. & Houston Oil Co.'s Anthis 1, sw se, 6-19-7e. W. E. Gayer's Deere 1, se sw, 6-19-7e.

GRADY COUNTY—Oklahoma Gas Utilities Corp.'s Taylor 2, csl n½ nw se 2-4n-8w.

HUGHES COUNTY—Magnolia's Baker 1, se ne, 5-9-11e.

KAY COUNTY—Ingram & Wilson's Booley 1, nw se sw sw, 14-27-1e. Alice Ewing et al's Redick 1, sw se nw, 27-28-2e.

KIOWA COUNTY—Russell & Sloan's Rushton 1, ne sw se 6-5n-14w. Conner & Son's Geis 1, se nw ne, 26-7n-16w.

LOGAN COUNTY—Gypsy's Jewell 1, nw cor 22-18-4w.

MARSHALL COUNTY—E. L. Smith Oil Co.'s Null 7, sw nw sw ne, 24-5s-5e.

MUSKOGEE COUNTY—R. E. Kimsey et al's Herrod 1, nw se nw se, 24-15-17e. H. L. Jolly et al's Durant 1, se sw sw ne, 30-15-15e.

NOBLE COUNTY—Don Reed's Mathison 1, se sw se se, 23-24-2w.

OKFUSKEE COUNTY—Jarvis & Holm et al's Fier 1, se sw, 16-10-11e. W. L. Umbrum's Simmer 5, csl n½ ne se, 11-10-11e. Atlantic's Simmer 4, cnl s½ ne se, 11-10-11e. Moffitt et al's Rogers 1, ne nw nw, 10-11-12e. Darby Pet. Corp et al's Smith 1, ne sw, 33-12-10e.

OKMULGEE COUNTY — Troutt Drilling Co.'s Doyle 10, cnw nw, 28-13-14e. A. McInturff's Meyers 2, csl nw nw, 8-13-14e. J. H. Rebold Oil Co.'s Haskins 10, cnl nw se, 22-13-12e. Harsha and Delaney's Unallotted 1, (owdd) sw nw, 35-16-14e.

OSAGE COUNTY—Plains Pet. Co.'s No. 1, sw se sw sw, 32-21-11e. Clin Moore Estate's No. 14, se sw sw sw, 9-21-9e; No. 13, nw sw sw 9-21-9e. Barnstetter & Barnsdall's No. 3, sw nw sw, 23-22-11e. Silurian Oil Co.'s No. 52, sw ne se ne, 18-23-12e. Gypsy & Marland's No. 1, ne nw ne, 16-23-7e. Winona Oil Co.'s No. 25, sw se ne se, 28-24-10e. Peters Pet. Co.'s No. 2, sw cor 28-24-9e. Wm. D. Gray Oil Co.'s No. 3, csl se, 34-24-8e. McCune et al's No. 11, nw ne se nw, 15-24-8e. Marland & Gypsy's No. 2, sw nw, 22-24-7e; No. 1, se nw, 22-24-7e; No. 1, sw ne, 22-24-7e. A. G. Oliphant's No. 1, (owdd) sw cor, 2-25-8e. Empire's No. 2-A, ne sw ne, 12-25-5e.

PAYNE COUNTY—Pure's Axtell 3, nw sw 8-18-4e.

PONTOTOC COUNTY—Homaokla Oil Co.'s Adams 2, (owdd) ne se 19-5-8e; McCall 5, (owdd) se nw, 17-5-8e. American O. & R. Co.'s Brown 2, sw ne se, 27-5-6e. LaSalle Oil Co.'s Mole 2, ne cor 31-5-5e.

POTTAWATOMIE COUNTY — Magnolia's Cherry "B" 2, sw se ne 26-7-4e. T. B. Slick and White Eagle O. & R. Co.'s Villines 1, nw se 20-8-5. Sinclair's Bellars 3, nw ne 19-8-5e.

SEMINOLE COUNTY—Sunray Oil Corp.'s Culley 8, se ne se ne 18-5-8. Sinclair's Davis 1, nw ne sw 7-6-8e. Carter's Walker 1, nw ne nw 24-7-6e. Roxana's Wolf 1, ne se se 23-7-6e. Carter's Harjo 3, ne nw sw 13-7-6e. W. B. Pine's Hoyecha 9, nw se se 26-8-6. Minnehoma O. & G. Co.'s Neal 1, ne nw nw 7-8-6e. W. L. Kistler's 1, ne nw 7-8-6e. Gypsy's Mimey 1, nw ne 14-8-5. Barnsdall's Coker 1, se sw 11-8-5. Marland's Strothers 1, nw se ne 5-10-7e.

STEPHENS COUNTY—Harris & McNeil's McCullom 1, nw sw ne 24-1s-4w. Saterwood & Hart's Hart 1, nw cor 9-1s-8w. Medlin et al's Simpson 4, nw ne sw se 34-1s-8w. Magnolia's Kagay 18, se sw 34-1s-8w. Randle & Muse's Dare 1, se sw 1-2s-8w. Pace et al's Bristowe 8-A, ne sw ne nw 18-2s-7w.

WAGGONER COUNTY—Neeley & Cody's Posey 1, sw cor 7-17-18e. W. R. Rowland's Sugar 1-A, nw sw 17-17-16e.

TEXAS

ARCHER COUNTY—Madden & Hunt, Olney, Richardson 10, B 1, S. Anderson sur, 300 ft e of No. 2; 9, 150 ft from n and e lines. Panhandle Ref. Co., Wichita Falls, Prideaux 7, A. Rohus sur, 300 ft e of No. 3. Texas Co., Wichita Falls, Richardson 21, S. A. R. sur, 690 ft from e and 150 ft from s line. Underwood Drilling Co. et al, Wichita Falls, Andrews 2, 1805 TE&L sur, 900 ft from w and 600 ft from s line. Magnolia Pet. Co., Dallas, Roberson 1, W. C. Winters sur, 150 ft from n and w lines.

ANDERSON COUNTY—Humble O. & R. Co., Houston, Holloway 2, D. Roberts sur, 122 ft from n and 150 ft from e line; Todd 1, D. Clark sur, 894 ft from s and 769 ft from e line.

ATASCOSA COUNTY — Allaun & Cosden Co., Fort Worth, Shaw 1, No. 336 Wm. Caruthers sur, 150 ft s of center of n line.

AUSTIN COUNTY—Humble O. & R. Co., Houston, Bracey 1, W. C. White sur,

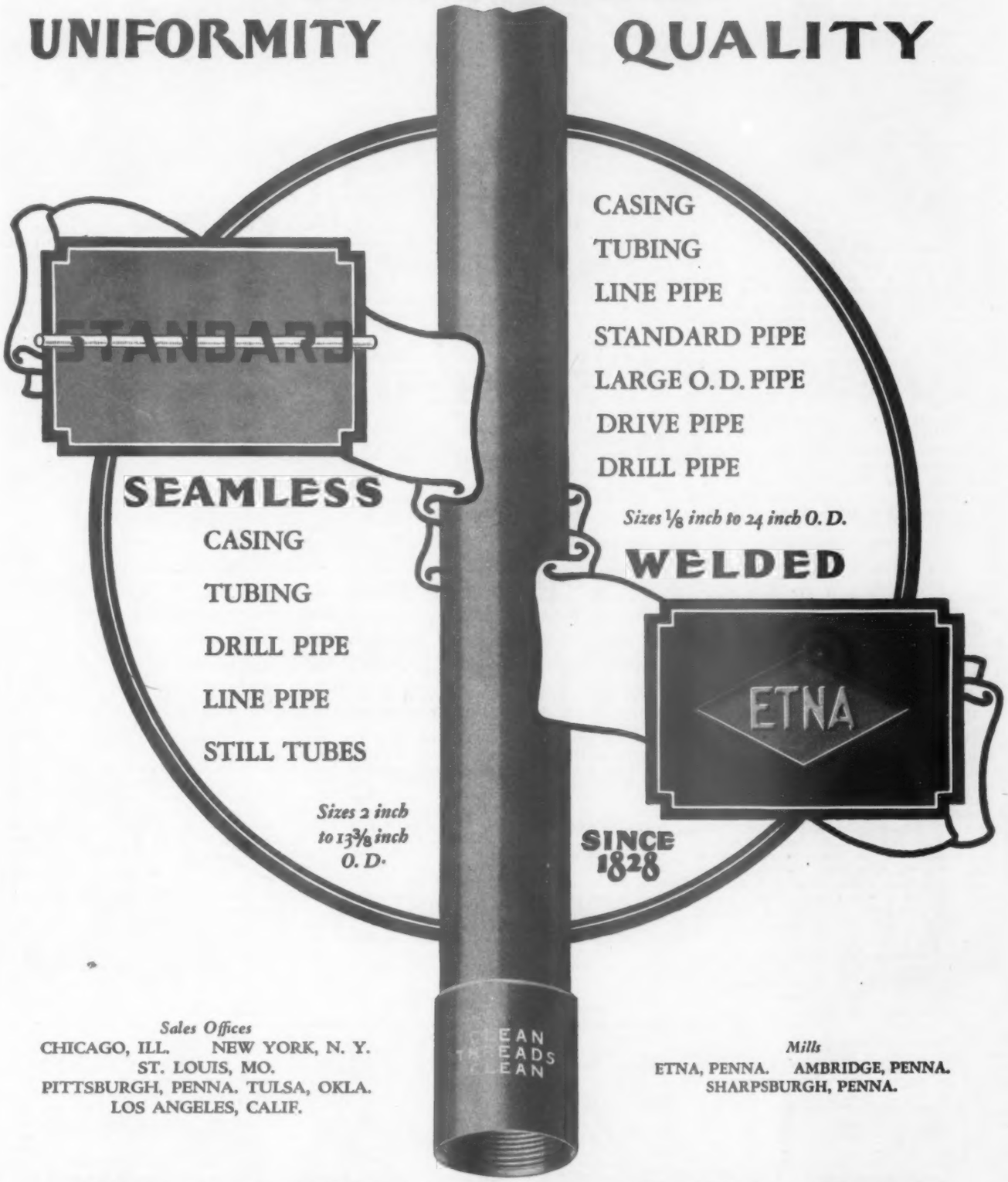
BROWN COUNTY—A. D. Bruce, Brownwood, Shields 3, J. C. Brown sur, 300 ft n of No. 2. Midland Oil Co., Fort Worth, Butler 10, S 783, T. Benson sur, 610 ft from s and 650 ft from e line. Woodley Pet. Co. & Young Bros. & Alexander, Inc., Fort Worth, Hickman 14, No. 783 T. Benson sur, nw corner. Bearman & Garrett, Cisco, Clark 1, B 3, J. McGloin sur, 150 ft from s and e lines. Clark-Buffalo Oil Corp., Brownwood, Keessee 2, No. 42 P. Lewis sur, 300 ft from n and w lines. A. D. Bruce, Brownwood, Shields 2, J. C. Borwn sur, 1460 ft from w and 450 ft from s line. Cranfill & Reynolds, Cisco, Eubanks 12, R. Mitchell sur, 600 ft w of No. 1; 13, 2500 ft from n and 450 ft from e line. Humphreys Bros., Inc., Brownwood, Bruce 1, No. 751 J. Dyson sur, 1300 ft from n and 1000 ft from w line. J. H. Green & Co. et al, Brownwood, Barnes 1, s 105, Hawkinburg sur, 200 ft from n and 150 ft from w line.

BASTROP COUNTY—Gulf Prod. Co., Houston, Bell 1, J. Riley sur, east central.

BEXAR COUNTY — F. H. Eckert, Campbellton, Dobrowski 2, S 4, No. 52 sur, 300 ft n of No. 1.

BRAZORIA COUNTY—Rycade Oil Corp., Houston, Wisdom 1, H. N. Cleveland sur, 100 ft from n and 150 ft from w line. Empire G & F. Co., Bartlesville, Okla., Brock 1, J. E.

Assured
DEPENDABILITY
UNIFORMITY QUALITY



Sales Offices
CHICAGO, ILL. NEW YORK, N. Y.
ST. LOUIS, MO.
PITTSBURGH, PENNA. TULSA, OKLA.
LOS ANGELES, CALIF.

Mills
ETNA, PENNA. AMBRIDGE, PENNA.
SHARPSBURGH, PENNA.

SPANG, CHALFANT & CO., INC.
GENERAL OFFICES, CLARK BUILDING
PITTSBURGH, PA.

Say you saw it in The OIL WEEKLY

Groce sur, 471 ft from n and 3780 ft from e line.

CALLAHAN COUNTY—Moutray Oil Co., Abilene, Hatchett 1, S 29, D&D Asy. sur, 150 ft from n and e lines.; Hickman 25, S 149, BBB&C sur, 377 ft n of No. 24. Mead-Mortimer et al, Cisco, Hickman 4, S 1, I&GN sur, 750 ft from n and 150 ft from e line. Grass roots Oil Co., Fort Worth, Klutz 3, B 44, CCSL sur, 150 ft from n and 450 ft from e line. McDowell Bros., Baird, Jones 1, S 89, BBB&C sur, 150 ft from n and e lines. West & Turner, Cisco, Brandon 1, 2267 TE&L sur, 150 ft from n and 450 ft from e line. Humphreys Bros., Inc., Brownwood, Bruce 1, No. 751 J. Dyson sur, 1300 ft from n and 1000 ft from w line. Flanagan & Markham, Tulsa, Okla., Eubanks 1, B 48, CCSL sur, 150 ft from n and e lines. Putnam Oil Co., Cisco, Davis 6A, S 4, Bayland Asy. sur, se of No. 6. Welch & Bedingfield, Cross Plains, Cavanaugh 4, B 47, CCSL sur, 150 ft from e and 750 ft from s line. O. H. Harwell, Abilene, Harwell 1, S 1, J. Smith sur, 150 ft from s and w lines. Crabb & McNeel, Cross Plains, Jones 1, B 85, CCSL sur, 450 ft from n and e lines.

COLEMAN COUNTY—Continental Oil Co., Wichita Falls, Overall 9, J. H. Bailey sur, 150 ft from n and e lines; Overall 2, J. H. Bailey sur, 200 ft from n and 150 ft from w line. Tower & McKanna, Inc., Wichita Falls, Moody 2, S 10, B 665, J. Scott sur, 300 ft s of No. 1. Independent O. & G. Co., Fort Worth, McCord 1, B 17, J. H. Barclay sur, 150 ft from w and 200 ft from s line. Ilseng Prod. Co., Fort Worth, Eddington 2, S 187, VCSL sur, 150 ft from s and w lines. Independent O. & G. Co., Fort Worth, McCord 1, No. 700 J. H. Barclay sur, 150 ft from w and 200 ft from s line. Cox & Lungre, Brownwood, Westbrook 1, No. 153 sur, 150 from s and w lines.

CHEROKEE COUNTY—Humble O. & R. Co., Houston, Weinburg 3, T. L. Trimble sur, 900 ft from s and 100 ft from w line.

CALDWELL COUNTY—J. L. Collins & Co., Corsicana, Bell Haven Home 1, I. Weldon sur, 150 ft from s and e lines. Sun Oil Co., Dallas, Malone 2, A. Floyd sur, 305 ft sw of No. 1. Lv Tex Oil Co., Inc., Los Angeles, Calif., Davis 3, A. Floyd sur, 150 ft from n and e lines. H. C. Ratcliff et al, Luling, Malone 1, A. Floyd sur, 150 ft from w and 1000 ft from s line.

CHAMBERS COUNTY—Humphreys Corp., Houston, Higgins 1, Wm. Bloodgood sur, 50 ft from w and 549 ft from s line; Barber A3, H. Griffith sur, 826 ft from nw and 50 ft from ne line. Kirby Pet. Co., C1, H. Griffith sur, 50 ft nw of center of se line.

COKE COUNTY—Mid-Kansas O. & G. Co., Tulsa, Okla., Lackey 1, S 272, Blk 1A, H&TC sur, 330 ft from s and w lines of S 272.

COOKE COUNTY — Pure Oil Co., Fort Worth, Embry 2, T. J. Moss sur, 320 ft w of No. 1.

EASTLAND COUNTY—J. E. Lewis & Co., Eastland, Johnson 1, S 14, H&TC sur, 165 ft from n and e lines. Glen Kahle et al, Dallas, Ferguson 1, S 10, E. T. Ry. sur, 150 ft from s and e lines. W. B. Smith et al, Eastland, Johnson 4, S 11, B. 4, H&TC sur, 160 ft from w and 600 ft from s line; Neal 1, S 19, B 2, H&TC sur, 150 ft from s and e lines.

FISHER COUNTY — Cranfill & Reynolds, Cisco, Sharp 1, S 207, B 1, BBB&C sur, 660 ft from n and e lines.

GONZALES COUNTY—Alexander & Smith, Houston, Billings 1, G. Gwinn sur, nw corner.

GOLIAD COUNTY—J. E. Alexander, Inc., Goliad, Campbell 1, Blk 7, Goliad sur, 315 ft from n and 327 ft from e line.

GRAY COUNTY — Gulf Prod. Co., Fort Worth, Bowers 6, S 89, B B2, H&GN sur, 330 ft from n and w lines of S 89. McIlroy Oil Co., Inc., Amarillo, Bull 2, S 3, B B2, H&GN sur, 330 ft from n and w lines; Bull 3, 660 ft s of No. 2; Bull 8, 660 ft s of No. 1. L. H. Schwald, Amarillo, Sullivan 1, S 1, B 1, ACH&B sur, 290 ft from n and 330 ft from e line. Texas Co., Wichita Falls, Davis 3, S 8, B B1, ACH&B sur, 2312 ft from w and 2309 ft from s line. Danciger O. & R. Co., Fort Worth, Morse 1A, S 2, B 26, H&GN sur, 330 ft from n and w lines.

HOWARD COUNTY — Magnolia Pet. Co., Dallas, Roberts 17, S 136, B 29, W&NW sur, 330 ft from n and 990 ft from w line. Ward Oil Corp., Ardmore, Okla., Roberts 3, S 137, B 29, W&NW sur, 280 ft from n and 330 ft from w line. Henshaw Oil Corp., San Angelo, Settles 2A, S 6, B 32, T&P sur, 330 ft from s and 210 ft from e line; Settles 3A, 987 ft from s and 210 ft from s line. Witherspoon & Glasscock Bros., San Antonio, Reagan 1, S 3, B 32, T&P sur, 330 ft from n and w lines; Reagan 2, 330 ft from s and w lines. Marland Oil Co., Fort Worth, Clay A10, S 139, B 29, W&NW sur, 250 ft from n and 1980 ft from e line. Louisiana O. & R. Co., Shreveport, La., Settles 2, S 6, B 32, T&P sur, 209 ft from ne and 330 ft from se line.

HUTCHINSON COUNTY — Phillips Pet. Co., Bartlesville, Okla., Dugan 1, S 72, B 46, H&TC sur, 330 ft from s and e lines.

HARDIN COUNTY — Paraffine Oil Co., Houston, Fee 78, 50 ft from n and e lines. Paggi Bros. Oil Co., Beaumont, Queen City 45, C. F. S. Jorditt sur, south central. Gulf Prod. Co., Houston, Knight 20, J. Chesson sur, 30 ft e of No. 2.

HARRIS COUNTY—Paxton & Pundt, Houston, Brubaker 1, B 17, B. Herrerra sur, 150 ft from s and w lines. Woods & Bennett, Humble, Horn 2, Jas. Strange sur, 75 ft se of No. 1.

JACK COUNTY — A. Ratblatt et al, Cisco, Maxey 1, S 2, J. Billington sur, 150 ft from s and e lines. Panhandle Ref. Co., Wichita Falls, Daugherty 2, I. Hughson sur, 300 ft w of No. 1.

JEFFERSON COUNTY — Yount-Lee Oil Co., Beaumont, McFaddin 84, P. Humphreys sur, 255 ft from w and 432 ft from n line. R. M. Bleakie, Beaumont, West 1, T. D. Yoakum sur, 300 ft from n and w lines. Oswald Dome Synd., Beaumont, Oswald 3, M. Peveto sur, 150 ft from n and 500 ft from e line. C. A. Frakes, Port Arthur, Port Arthur 1, S 391, BBB&C sur, 150 ft from s and e lines.

JASPER COUNTY—Great Lakes Oil Co., Rockland, Boykin 3, BBB&C sur, sw corner.

LIBERTY COUNTY—Sun Oil Co., Beaumont, Mitchell 9, M. G. White sur, 150 ft n of No. 8.

MAVERICK COUNTY—Ryan Consolidated Pet. Corp., Bartlesville, Okla., Indio Co. 2, S 7, A. Rivas sur, ne corner.

McCULLOCH COUNTY—W. M. Lanning et al, Brady, Barton 1, No. 1055 sur, 2640 ft from n and 2420 ft from e line.

MOORE COUNTY — Devonian Oil Co., Tulsa, Okla., Sneed 1, M. Robinson sur, 330 ft from center of s line.

NUECES COUNTY—Agua Dulce O. & G. Co., Agua Dulce, Sponberg 1, S 87, Puentecitas, center. R. & G. Corp., Laredo, Allen 1, B 6, Puentecitas sur, 150 ft from n and w lines.

NAVARRO COUNTY—Boardman & Ulrich, Rice, Bradley 1, RCSL sur, 450 ft from s and w lines.

PECOS COUNTY — Mid-Kansas O. & G. Co., Tulsa, Okla., Yates 6, S 62, B 1, I&GN sur, 8253 ft from w and 821 ft from s line S 62. M. A. Smith 3, S 31, B 194, GC&SF sur, 1305 ft from w and 250 ft from n line. Red Bank Oil Co., Tulsa, Okla., Smith 5, S 24, B 194, GC&SF sur, 3327 ft from n and 330 ft from w line. Mid-Kansas O. & G. Co., Tulsa, Yates 11, S 60, B 1, I&GN sur, 250 ft from n and 845 ft from w line S 60; Yates 4, S 63, B 1, I&GN sur, 5065 ft from w and 250 ft from s line s 63.

PANOLA COUNTY—Natural Gas Prod. Co., Wichita Falls, Moore 2, B. C. Jordan sur.

REFUGIO COUNTY — Benedum-Trees Oil Co., Pittsburgh, Penna., Heard 2, B 1, C. Heard sur, 300 ft w of No. 1; Heard 3, 300 ft s of No. 1.

SHACKELFORD COUNTY — Ohio Texas Oil Co., Albany, Mathews 8, S 29, E. T. Ry. sur., 750 ft from n and w lines. Union Oil & Mining Co., Tulsa, Okla., Huskey 30, 548 TE& L sur. A. Crosby, Albany, Cockrell 2, S 6, LAL sur, 300 ft n of No. 1. C. H. Half, Albany, Gothe 1, s 567, TE&L sur, 150 ft from s and e lines. J. P. Harris, Mineral Wells, Matthews 2B, S 57, E. T. Ry. sur, 300 ft from w and 900 ft from s line. L. B. Tannehill, Albany, Moberly 8, S 59, T. T. Ry. sur, 175 ft from s and w lines. Wichita Prod. Co., Wichita Falls, Meyers 4, S 1, GH&H sur, 450 ft from n and 150 ft from e line. Texas Co., Wichita Falls, Sedwick 5, S 1, B 1, E. T. Ry. 1062 ft from n and 460 ft from w line. Roeser & Pendleton, Inc., Fort Worth, Cook A20, S 61, E. T. Ry. sur, 419 ft from w and 150 ft from s line. Zoggie & Arendt Oil Co., Albany, Blach 24, 507 TE&L sur, 150 ft from ne and 450 ft from se line. L. H. Wentz, Eastland, Mathews A1, S 38, E. T. Ry. sur, 50 ft no of No. 1.

STEPHENS COUNTY — Dorothy Oil Co., Eastland, Thorp 1, S 456, B 7, S. P. Ry. sur, south central.

SMITH COUNTY — Amerada Pet. Corp., Cisco, Christian 1, F. Flores sur, 876 ft from n and 330 ft from e line.

THROCKMORTON COUNTY—H. I. Stock, Cisco, Cummings 2, S 31, B 24, C. T. Ry. sur, 150 ft from s and e lines. E. J. McCurdy, Mineral Wells, Reynolds 3, S 13, B 2, AB&M sur, west central.

TAYLOR COUNTY — C. C. Cady, Moran, Burns 5, S 68, LAL sur, 150 ft from n and w lines. Mid-Kansas O. & G. Co., Tulsa, Okla., Parramore 1, s 81, E. Anderson sur, 330 ft from n and e lines.

WICHITA COUNTY—Jeffers & Gilchrist & Soules, Burkburnett, Foster 1, J. Mumford sur, 400 ft from s and 150 ft from e line. Mount & Graham, Wichita Falls, Burnett B1, S 7, HT&B sur, 200 ft from e and 750 ft from s line. E. S. Easton, Wichita Falls, Ancell 1, L. C. Gibbs sur, 20 ft from n and 150 ft from e line. W. H. Hammon et al, Wichita Falls, McCarty 11, S. O. Fowler sur, ne corner. L. E. Piper, Vernon, Ferguson 11, J. T. Lewis sur, 300 ft nw of No. 4. W. B. Omohundro, Wichita Falls, Pace 8, H. J. Scott sur, 300 ft e of No. 16. Ryan Consolidated Pet. Corp., Bartlesville, Okla., Nance 99, S. O. Fowler sur, 750 ft from n and 930 ft from e line. Marvin Blair, Electra, Honaker 1, DL&C sur, 1970 ft from n and 1433 ft from e line. W. H. Hammon et al, Wichita Falls, McCarthy 11, W. R. Eaves sur, ne corner. Earl Abraham, Bridgetown, Roberts 5, L. Powell sur, north central.

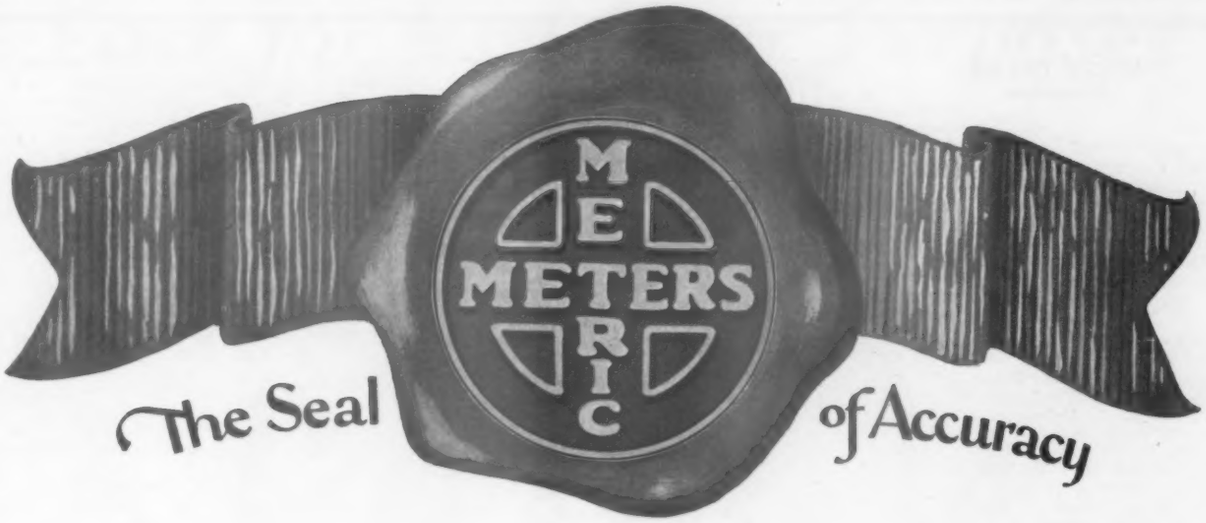
WILBARGER COUNTY—Lewis Prod. Co., Dallas, Waggoner 2, S 18, B 4, H&TC sur, 150 ft from e and 200 ft from s line. Jno. Waggoner Co. 1 sur, 450 ft from e and 1125 ft from s line. Fain-McGaha Oil Corp., Wichita Falls, Waggoner 1, S 7, B 4, H&TC sur, 1220 ft from n and 1070 ft from w line. L. P. Hammond, Wichita Falls, Waggoner 1, S 16, B 4, H&TC sur, 150 ft from n and e lines. Cosden & Co., Inc., Fort Worth, Waggoner 30B, S 31, B 4, H&TC sur, 300 ft s of No. 29. King Royalty Co., Wichita Falls, Waggoner 1, S 3, S. P. Ry. sur, sw corner. R. R. Robertson, Wichita Falls, Yarbrough 1, S 8, B 5, H&TC sur, 2490 ft from e and 1650 ft from s line.

WINKLER COUNTY — Dixie & Southern Crude Oil Purchasing Co., Shreveport, La.; Hendrick 17, S 30, B B5, 330 ft from n and 990 ft from e line of s 30; Hendrick M29, S 33 B 26, 1650 ft from e and 990 ft from s line of S 33; Hendrick M28, 990 ft from s and e lines of Sec. 33; Hendrick J5, S 30, B B5, 990 ft from e and 1320 ft from s line of S 30. Pure Oil Co., Fort Worth, T. G. Hendrick 11, S 45, B 26, 660 ft se of No. 1; T. G. Hendrick 12, 660 ft sw of No. 3. Dixie & Southern Crude Oil Purchasing Co., Shreveport, La., I. Hendrick M30, S 33, B 26, 440 ft from n and 330 ft from e line; I. Hendrick S4, S 34, B 26, 2200 ft from n and 990 ft from w line of S 34; T. G. Hendrick A5, S 35, B B5, 1650 ft from n and 990 ft from w line of S 35; T. G. Hendrick C2, S 35, B B5, 990 ft from e and 2310 ft from S line of S 35.

WEBB COUNTY—Magnolia Pet. Co., Dallas, Valdez 12, No. 754 sur, 500 ft e of No. 3. Sun Oil Co., Dallas, Yeager-Stroman 4B, No. 300 ft w of No. 2B. Houston Oil Co., Houston, Benavides D5, S 753, B 13, 160 ft from s and w lines. Magnolia Pet. Co., Dallas, Yeager 13, Las Animas sur, 150 ft from w and 750 ft from s line.

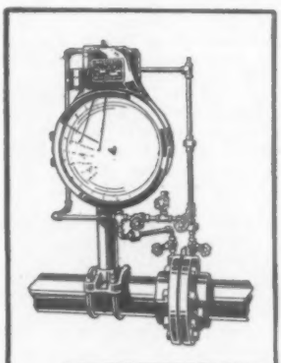
WASHINGTON COUNTY — Sun Oil Co., Dallas, Grote 2, N. Clay sur, 521 ft from ne and 443 ft from se line.

YOUNG COUNTY — Marvin Smith, Fort Worth, Grubbs 1, No. 647 TE&L sur, 150 ft from n and e lines. Petroleum Prod. Co., Wichita Falls, Hennig 6, 410 TE&L sur, 300 ft w of No. 5; Parrish 1A, 409 TE&L sur, 181 ft from e and 150 ft from s line; Parrish 2A, 297 ft w of No. 1; Parrish 1B, 409 TE&L sur, 114 ft from w and 150 ft from s line. Union Oil Co. of Nevada, Abilene, Wilson 1, 162 TE&L sur,450 ft from n and 150 ft from w line. Holbrook & Woods, Wichita Falls Davis 2, 1395 TE&L sur, 450 ft from e and 437 ft from s line. Allday Oil Corp., Wichita Falls Johnson A-7, E. W. Sergenat sur, 150 ft from n and 714 ft from e line. Kleiner, H-Y Oil Co. & West, Cisco, Davis 6, 1487 TE& L sur, 150 ft from n and 450 ft from e line.



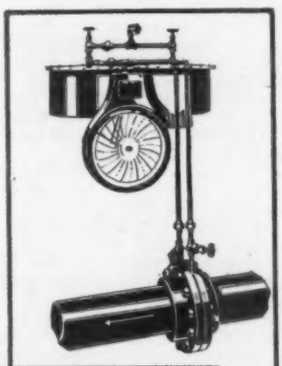
Upholding advanced Standards in measuring

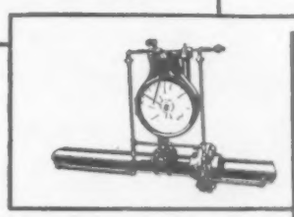
When you remove the chart from a Metric Orifice Meter you have a record upon the accuracy of which you can rely. The Metric orifice attained the distinction of being the most accurate and dependable apparatus for the measurment of gases and liquids flowing in pipe lines soon after we introduced this type of meter thirteen years ago. And it has maintained this distinction ever since, despite the designing and manufacturing of many velocity meters of simple and complicated form. Since its inception no other meter intended for similar service has obtained any advantage over the pioneer Metric ORIFICE, *except at the expense of those most fundamental qualities—accuracy and dependability.* In these most desirable characteristics these meters carry all honors.

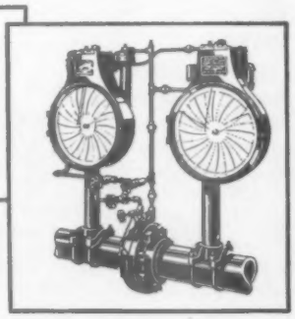


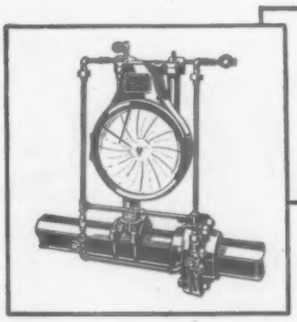
WESTCOTT & GREIS, Inc.
Sales Service
Dallas TULSA Los Angeles

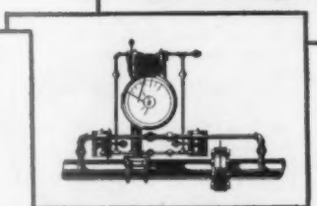
METRIC METAL WORKS
of the American Meter Company, Inc.
· ERIE · PENNSYLVANIA · U·S·A ·











MEASURE with METRICS

METRICS mean MEA-SURE-MENT

WILDCATS FROM ALL SECTIONS

WEST TEXAS

Completions

Company, Well and Location	Initial Production Bbls.	Depth
JONES COUNTY—		
E. P. Campbell & E. G. Clark, Dickinson 1	*	2542
PECOS COUNTY—		
Olean Pet. Co., Harral 1	*	3303
WINKLER COUNTY—		
Empire Gas & Fuel Co., Daugherty 1	2000	3141

ANDREWS COUNTY — Deep Rock Oil Co.'s D. J. Hostetter 1, dr 100 ft. Mid-Continent Pet. Corp.'s M. M. Fisher 1, lcn.

BORDEN COUNTY—Condor Oil Co.'s Hall 1, dr 625 ft. E. L. Doheny et al's Koonsman 1, elev 2427 ft, top salt 900 ft, top lime 2430 ft, sd 3210 ft.

BREWSTER COUNTY—Brewster Oil Co.'s Fee 1, lcn. Cowden et al's Jackson-Harmon 1-A, sd 1500 ft. Forest Oil Corp.'s Skinner 1, sd 1150 ft. Van McPhail et al's McIntyre 1, sd 1765 ft. Reese & White's Kimball 1, sd 2010 ft. Clayton Williams et al's Poncey 1, dr 485 ft.

COKE COUNTY—Lipan Oil Co.'s Rawlings 1, sd 2840 ft. Louisiana Oil & Ref. Corp.'s Powers 1, dr 2025 ft. Mid-Kansas O. & G. Co.'s Lackey 1, dr 880 ft.

CONCHO COUNTY — Exploration Co.'s Hartgrove 2, machine. K. Kimberlin et al's Maloy 1, sd 1460 ft.

CRANE COUNTY — C. C. Duffey et al's Cowden 1, top salt 675 ft, dr 1270 ft. Evans et al's State Bank Fee 1, 3651 ft. Gulf Prod. Co.'s Waddell 5, elev 2740 ft, top salt 1215 ft, top gray lime 3100 ft, set cas 3162 ft.

CROCKETT COUNTY—Barbara Oil Co.'s H. B. Cox 1, dr 730 ft. T. W. Callahan et al's Todd 1, elev 2465 ft, top salt 905 ft, dr 1885 ft. Hal Compton & Co.'s University 1, dr up bailer, 2200 ft. W. W. Donnelly-W. A. Moncrief-J. D. Young's J. S. Todd 1, machine; Todd 2 and 3, lcns. Fuhrman Pet. Corp.'s Padgett 1, elev 2305 ft, top salt 670 ft, top lime 1440 ft, show gas 1750 ft, trace oil 1760-63 and 1771 ft, dr 1815 ft. Texas-Canadian Oil Co.'s University 1, spudding. F. P. Zoch-W. A. Moncrief et al's Tippett 1, lcn. J. D. Wheeler et al's State Fee 1, sd 285 ft.

CULBERSON COUNTY — Deep Rock Oil Co. & Grisham-Hunter Corp.'s J. P. Seay 2, lcn. J. M. Hickey et al's Finley 1, sd 1565 ft. Scott & Dittman's Miller 1, sd 1765 ft. West Texas Oil & Exploration Co.'s (was Hillyer) McGregor 1, rig.

JEFF DAVIS COUNTY—Sam F. Means et al's J. Z. Means 1, sd 3205 ft.

DAWSON COUNTY—Magnolia Pet. Co.'s W. R. Jeter 1, dr 1350 ft.

EDWARDS COUNTY—Gail Oil Co.'s Jernigan 1, sd 350 ft. McMan O. & G. Co.'s Schreiner 1, sd 1905 ft.

EL PASO COUNTY—C. E. Sillix et al's Malone 1, sd 1010 ft.

FISHER COUNTY — Hal Cochran-Bickerstaff et al's McWhirter 1, sd 1330 ft. Cranfill-Reynolds & Sun Oil Co.'s E. G. Young 1, elev 1801¼ ft, dr 2750 ft; J. A. Young 2, elev 1806 ft, dr 2825 ft; J. L. Sharp 1, dr 220 ft. Hucony Gas Co.'s Marberry 1, dr 1505 ft. R. W. Rainey & Bill Little's Marberry 2, elev 19129 ft, top lime 2995 ft, dr with hfw 3380 ft. Roeser-Pendleton-Landreth's Decker 1-A, fsh 2180 ft.

GAINES COUNTY—Pure Oil Co.'s A. A. Williamson 1, dk.

GARZA COUNTY—Emerald Oil Co.'s Boren 3, pb for shot, td 4801 ft.

GLASSCOCK COUNTY—Eastland Oil Co. & White Eagle O. & R. Co.'s Cox 1, top salt 1225 ft, top lime 2602 ft, dr 3165 ft. World Oil Co.'s McDowell 1-B, elev 2325 ft, dr 2980 ft.

HOWARD COUNTY—Worth B. Andrews et al's Neal 1, dr 1900 ft. W. W. Donnelly et al's Clay 1, td 3135 ft, pb to 1900 ft. Green O. & R. Co.'s Furrh 1, rig. L. C. Harrison et al's Dodge 1, elev 2321 ft, top lime 1830 ft, sd 2430 ft. Henshaw Oil Corp. et al's Settles 2-A, rig; Settles 1-B, elev 2680 ft, top lime 2085 ft, sd in oil pay 2920-40 ft; Settles 1-C and 2-C, dks. Group One Oil Corp.'s Quinn 1, dr 840 ft. Group One Oil Corp. & Marland Prod. Co.'s Settles 6-A, rig. Louisiana Oil Ref. Corp.'s Kloh-Rumsey 1, top gray lime 2174 ft, dr 2305 ft; Settles 1, dr 1225 ft; Settles 2, rig. Taylor-Link Oil Co.'s Kloh-Rumsey 1, swab 140 bbls pay at 2262-2389 ft. Phillips Pet. Co.'s Thomas 1, rig.

HUDSPETH COUNTY — The California Co.'s University 1, dr 155 ft. Western States Oil Co.'s Gardner-Mosely 1, sd 3125 ft; S. W. Moore 1, dr 2720 ft.

IRION COUNTY—Fuhrman Pet. Corp., J. D. Sugg 1, 2 and 3, lcns. Central Oil Co.'s Horney 1, sd 200 ft. Kimbrough et al's Nutt 1, sd 1400 ft. Mertzon Oil Co.'s Roach 1, sd 1925 ft. Signal Oil Co.'s Suggs 1, elev 2415 ft, top salt 705 ft, dr 1680 ft. Sun Oil Co.'s Williams 1, elev 3232 ft, hfw 1365-80 ft, ur 1425 ft. Webb et al's Nutt 1, sd 2003 ft. W. West et al's Suggs 1, elev 2334 ft, sd 3035 ft.

JONES COUNTY — Atkinson & Sandefer's Hudspeth 1, dr 1940 ft. E. P. Campbell et al's Berry 1, ur 1800 ft. Cosden & Co. & Herbert Oil Co.'s Bickley 1, rig; Bickley 5, dr 1790 ft. Cowboy Evans et al's King 1, sd 1825 ft. Cranfill-Reynolds-Dilworth's Bickley 1, dr 1200 ft. Eastland Oil Co. & White Eagle O. & R. Co.'s Derrick 1, dr 2655 ft. Independent O. & G. Co.'s Smith 1, dr 2255 ft. McMan O. & G. Co.'s Bickley 1, dr 2090 ft; Bickley 2, rig. McNeeley et al's R. Bland 1, rig. Mook-Texas Oil Co. et al's McCright 1, sd 2570 ft. Phillips Pet. Co.'s Mason 4, dr 2755 ft; Windham 1, dr 1700 ft; Tessie-Walling 5, set cas 2447 ft. Milt Richardson et al's Martin 1, fsh 725 ft. Robert Oil Corp. et al's Smith 2, set cas 2470 ft; Smith 3, dr 2080 ft. Roeser-Pendleton-Landreth's Grayson 3, rig; Grayson 1-B, dr 2265 ft. Sinclair O. & G. Co.'s Bickley 1, dr 2380 ft; Bickley 2, dr 1695 ft. Snowden & McSweeney's Bickley 2, set cas 2090 ft. Texas Co. & Cosden & Co.'s Camp 1, elev 1883 ft, ur 1050 ft; L. Carter 2, elev 1867 ft, ur 2328 ft. Woods & Williams' M. A. Parr 1, sd 750 ft.

KENT COUNTY—Cosden & Co.'s Bilby 1, dr 3170 ft. Phillips Pet. Co.'s Sandell 1, dr 4130 ft. Pursley Ranch Dev. Co.'s Fee 1, lcn.

KING COUNTY—Humble's Pitchfork 1, dr 4550 ft. Texas Co.'s Johnson 1, dr 4005 ft.

LOVING COUNTY—Lockhart & Co.'s R. L. Allen 2, cem cas 578 ft; Fee-Lepp 1, sd 4190 ft; Wheat-Ramsey 1, top salt 720 ft, dr 3335 ft. Hadlock Oil Co.'s Russell 2, flowing 15 bbls oil and 15 bbls water after shot, td 4395 ft.

MENARD COUNTY — J. C. Barnett & Drake's Callahan-Rasmussen 1, dr 1710 ft. Panhandle Ref. Co. et al's G. P. Eckhardt 1, sd 3018 ft.

MIDLAND COUNTY—C. P. Shelton et al's Kloh 1, elev 2783 ft, top salt 1810 ft, dr 3635 ft. O. H. Shoup et al's Parks 1, elev 2871 ft, top salt 1740 ft, sd 4004 ft.

MITCHELL COUNTY—E. P. Campbell et al's Pond 1, dr 685 ft. Hucony Gas Co.'s Weichsel 1, elev 2139 ft, top salt 550 ft, top lime 1342 ft, sd 1349 ft. Teas & Wheeler's Radford 1, dr 910 ft.

NOLAN COUNTY—Herbert Oil Co.'s Pepper 1, elev 2242 ft, cont. comp. sd 3303 ft.

PECOS COUNTY—Anderson et al's University 1, sd 1880 ft. Alexander-Lyles & Eastland Oil Co.'s Sellman-White 1, elev 2672 ft, top salt 814 ft, top lime 1602 ft, testing pay with spray oil and four million feet gas 1611-26 ft. Atlantic Oil Prod. Co.'s Sellman-White 1, machine. Benedum-Trees et al's Corder 1-A, top lime 1840 ft, dr 2070 ft. M. Z. Dibble et al's Bonebrake 1, elev 2555 ft, sd 1575 ft. A. T. Fletcher et al's Powers-Winfield 1, top salt 1740 ft, dr 1855 ft. J. W. Grant et al's Turney 1, elev 2592 ft, sd 3850 ft. Mauch & Krogen's Holmes 1, elev 2325 ft, top salt 535 ft, sd 1138 ft. Pecos Valley Oil Co.'s Fee 1, sd 1015 ft. Rio Pecos Oil Co.'s Yates 1, dr 350 ft. Roxana & Kirby's University 1, sd 4002 ft. Schumaker et al's Williams 1, spudded and sd. Southern Crude Oil Pur. Co.'s Scarbauer 1, elev 2680 ft, co 2964 ft. Talbot & Dittman's Unsicker 1, rig. Transcontinental Oil Co.'s University 1, elev 2552 ft, top lime 1035 ft, set cas 4128 ft. World Oil Co.'s Kloh 1, elev 2810 ft, sd 3105 ft. F. P. Zoch-W. A. Moncrief-Geo. McCamey's Cordova Union 1, elev 2275 ft, top salt 540 ft, top lime 1230 ft, trace oil, dr 1310 ft.

PRESIDIO COUNTY—Eastland Oil Co. et al's Smith 1, lcn. L. C. Brite, Prod. Co.'s Brite 1, sd 2500 ft. Empire-Delmar & Phillips Pet. Co.'s Tootle 1, fsh 680 ft.

REAGAN COUNTY—Empire Gas & Fuel Co.'s Sawyer 1-A, dr 710 ft. Skelly Oil Co. & Utah Southern's University 3, dr 780 ft. Texon Oil & Land Co.'s University 1-B, (World's deepest test) dr black lime 8399 ft.

REEVES COUNTY—E. W. Brooks-Thompson et al's Eddins 1, elev 2719 ft, top salt 1622 ft, top gray lime 3216 ft, fsh 5658 ft. D. P. Davis et al's McCart 1, spudded and sd. The Exploration Co.'s Kinney 1, elev 2847 ft, sd 2900 ft. Dr. Kitsos et al's Kloh-Rumsey 1, spudded and sd.

RUNNELS COUNTY — Agnew & Sons et al's Russell 1, dr 4125 ft. Gibson-Johnson et al's Rainwater 1, sd 2630 ft. Union Oil Co.'s Allen 1, dr 200 ft. Vacuum Oil Co. et al's McMillan 3, flowing 350 bbls 44 degree gravity oil daily, 2512-13 ft.

SCHLEICHER COUNTY — Long Bros. et al's Williams 1, spudded and sd. Ft. McKavett Oil Co.'s Tisdale 1, lcn.

SCURRY COUNTY—Landreth Prod. Corp.'s Hillmer 1, elev 2314 ft, top salt 870 ft, dr 2265 ft. J. B. Mims et al's Koonsman 1, spudded and sd. R. B. Pender et al's Davis 1, dr 355 ft.

STERLING COUNTY—F. & G. Oil Co.'s Foster 1, dr 895 ft.

STONEWALL COUNTY—Sun Oil Co. & Cranfill Bros.' Rayner 1, elev 1818 ft, top lime 1500 ft, ur cas 2800 ft.

SUTTON COUNTY—Phillips Pet. Co.'s B. H. Cusenbary 1, lcn; Holman 1, dr 5745 ft.

TAYLOR COUNTY — Grisham - Hunter Corp.'s Stevens 1, fsh 1890 ft. Hurley Oil Co.'s Payne 1, spudded and sd. Mid-Kansas O. & G. Co.'s J. H. Parramore 1, dk.

TERRELL COUNTY—BigBend Oil Corp.'s Bassett 1, spudded and sd. Champlin Ref. Co.'s

ABBREVIATIONS

NOTE—The following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million feet of gas; abn—abandoned; bbls—barrels; b.s.—basic sediment; cas casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; lcn—location; m—milling; n, s, e, w—north, south, east, west; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudding; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—underreaming; wo—workover; wosr—waiting on standard rig.

New Denver Company in South America

Denver, Colo.—A new company, recently organized in Denver, has for its object the operation of leases in Chile for the government. The company is Araucana Corporation and Max W. Ball is president, R. A. Brett is vice president and general manager; Dr. J. W. Miller is vice president, and E. F. Randolph is secretary-treasurer. American offices will be maintained in Denver and the South American offices will be in Punta Arenas, Chile.

Each for its Proper Purpose

DARLING makes Gate Valves of the steel which best meets the conditions for which they are intended. If high, unexpected pressure is your problem, use the Darling Forged Steel Valve with its remarkable strength. If, however, conditions are normal, you will find our cast iron or semi-steel valves suitable.

All Darling Valves embody the principle of construction which have made our name famous in valve markets and which mean a long wearing, tight closing, easily operated gate valve and most easily repaired in the field.

DARLING VALVE & MANUFACTURING CO.
WILLIAMSPORT, PA.

New York Chicago Oklahoma City Houston

Mid-Continent Distributors:
Frick-Reid Supply Corp. Atlas Supply Co.
International Supply Co. Petroleum Supply Co.
Happy Belting Co.

California Distributor:
Petroleum Equipment Co., Los Angeles

DARLING
GATE VALVES

Carter 1, elev 2884 ft, fsh 3552 ft. Mrs. J. B. McPhea et al's Sam Belt 1, dk. Milham Corp.'s Bassett 1, elev 2270 ft, dr 4255 ft. Keck-Pecos Oil Trust Co.'s Hamilton 1, sd 1749 ft.

TERRY COUNTY—Superior O. & G. Co.'s Brownfield 1, elev 3205 ft, sd 4435 ft.

UPTON COUNTY—Keck Investment Co.'s McClintic 1, dr 1095 ft.

VAL VERDE COUNTY—Dyer Bros. et al's W. E. Wilson 1, sd 1220 ft. Producers Oil Co. et al's Everett 1, lcn. Val Vert Oil Corp.'s Bassett 1-A, dr 1250 ft.

WARD COUNTY — Denver Prod. & Ref. Co.'s Cherokee 1, elev 2597 ft, salt at 2755 to 3080 ft, dr 4260 ft. E. H. Lovelace et al's Redman 1, spudded and sd. Prairie O. & G. Co.'s Sealy 1, elev 2666 ft, top salt 1073 ft, making five million ft dry gas 2526-75 ft, dr 2700 ft. Rector Oil Co. et al's Johnson 1, elev 2438 ft, top salt 745 ft, top lime 2010 ft, fsh 2085 ft. Shipley et al's Hayslett 1, top salt 727 ft, sd 2210 ft.

WINKLER COUNTY—Amerada Pet. Corp.'s Daugherty 1, dr 2620 ft; Daugherty 2, dk. Atlantic & Kessler-Logan's Daugherty 2, dr 2470 ft. Barnsdall Oil Co.'s Tobe Morton 1, dr 500 ft; Morton 2, rig. Cranfill & Reynolds' Hendrick 1-F, (Sec. 16) top salt 1985 ft, dr 2250 ft. Empire Gas & Fuel Co.'s Daugherty 2, 3 and 1-B, lcns. Gulf Prod. Co.'s O'Brien 2, dr 1480 ft; O'Brien 3, dk. Magnolia Pet. Co.'s Scarborough 1, dr 1075 ft. Marland Prod. Co.'s Morton 1, dk. Prairie O. & G. Co.'s Leck-Daugherty 1, lcn; Morton 1, dk. Roxana & Danciger O. & R. Co.'s Daugherty 1, dk. Simms Oil Co. & Southwest Oil Prod. Co.'s Geo. Sealy 1, dk. Southern Crude & Westbrook's Hutchings 3-T-90, (Sec. 47) elev 2839 ft, top lime 2325 ft, flowing 200 bbls oil daily 2898-2961 ft. Wentz Oil Corp.'s Morton 1, rig.

SOUTH LOUISIANA

Completions

LA FOURCHE PARISH—		
Gulf, Mrs. W. H. Stark et al 5, Thibodaux	*	1300
ST. MARTIN PARISH—		
A. G. Broussard, Bergeron 2, Anse la Butte	*	1045

ACADIA PARISH—E. F. Simms' Clement 1, Jennings, trying to pull screen, td 3872 ft; Clement 2, Jennings, tested salt water at 3300 ft, now standing; Grace Von Schueler 1, Jennings, dr 1480 ft sand; Jennings Oil Co. 1, Jennings, dr 3425 ft shale; Cockrell 1, Jennings, set 4300 ft of cas. Gulf's Housierre-Latrille 1, dr 5065 ft shale.

ASCENSION PARISH—Gulf's United Lands Co. 10, Sorrento, dr 1600 ft sandy shale; United Lands Co. 11, Sorrento, lcn. Triumph Oil Corp.'s Lacey et al 2, 1½ mi se Sorrento, ru. Burnside Oil Co.'s Roberts 1, dr 320 ft sand. Baton Rouge Pet. Co.'s Liotta 1, sd 1000 ft.

CALCASIEU PARISH—Union Sulphur Co.'s Fee 729, Sulphur, drk; Fee 730, Sulphur, dr 5540 ft shale and lime; Fee 731, Sulphur, prep to set 6⅝-inch cas at 4780 ft; Fee 733, Sulphur, dr 3365 ft sand; Fee 734, Sulphur, dr 2785 ft sand; Fee 735 Sulphur, dr 2025 ft gbo and lime; Fee 736, Sulphur, lcn; Fee 737, Sulphur, dr 1780 ft rock. Lehay et al's Jones 2, dr 2200 ft gbo. J. W. Watson et al's La. Land Co. 1, Sulphur, dr 4125 ft gbo.

CAMERON PARISH—Pure's Yount-Lee 2, Sweet Lake, moving in rig to pull cas and abn; Yount-Lee 6, Sweet Lake, dr 5492 ft sandy shale. La. Land & Explo. Co.'s Calcasieu Lake B-3, Kelso Bayou dome, dr 3345 ft rock. Roxana's Watkins 3, Black Bayou dome, coring gypsum, 1360 ft; Watkins 4, Black Bayou dome, dr 2420 ft stick shale.

EAST BATON ROUGE PARISH—Capital Oil Co.'s Tucker 1, sd 2845 ft.

IBERIA PARISH—La. Land & Explo. Co.'s Avery Island 2, dr 5000 ft shale; Vermilion Bay A-3, Vermilion Bay dome, ru; Bernard 1, New Iberia field, will sdtrk at 2100 ft. Gulf's State Z-6, Loreauville, losing returns at 1375 ft; Kling 2, Loreauville, dr 1675 ft sand.

IBERVILLE PARISH—Roxana's Wilbert 2, White Castle, cap rock at 4218 ft, waiting on orders. Standard of La.'s Wilbert 1, White Castle, dr 3785 ft sand; Schwing 1, White Castle, ru. Union Sulphur Co.'s Schwing 3, lcn.

LA FOURCHE PARISH—Gulf's Stark et al 7, Thibodaux, dr 885 ft shale; Mrs. W. H. Stark et al 5, Thibodaux, abn 1300 ft salt.

PLAQUEMINE PARISH—Gusher Bill O. & G. Co.'s Park Plantation 1, sd 2670 ft.

ST. MARTIN PARISH—Rycade Oil Corp.'s Atchafalaya Fee 4, Bayou Boullion, dr 1050 ft; Bayou Boullon 4, dr 2335 ft shale and lime; Bayou Bouillon 5, dr 700 ft sand; Atchafalaya Fee 3, Bayou Bouillon, dr 3335 ft sandy shale. Bowie O. & G. Co.'s Begnaud 4, Anse La Butte, td 3920 ft. A. G. Broussard's Bargeron 2, Anse la Butte, abn 1045 ft. Yount-Lee Oil Co.'s La. Pet. Co. 3, dr 1000 ft gbo. Ohio Oil Co.'s Martin et al 3, Hager dome, dr 3427 ft shale.

ST MARY PARISH—J. Dannenbaum et al's Le Blue 1, Charenton, sd 2050 ft.

ST. TAMMANY PARISH—Pearl Oil Co.'s Fritsche 1, Slidell, dr 1340 ft gbo.

TANGIPAHOA PARISH—Amite Drlg. Co.'s Weinberger 2, dr 1670 ft shale. Kentwood Pet. Co.'s Kent Realty Co. 1, dr 1520 ft gbo.

TERREBONNE PARISH—Sou. Gas Co.'s Peoples Sugar Co. 1, dr 1250 ft gbo.

VERMILLION PARISH—Cardinal Oil Co.'s Vallee 1, drk. Kaplan Pet. Co.'s Du Bois 1, sd 2430 ft.

WEST FELICIANA PARISH—Robertson & Long's Raccourci 1, dr 200 ft.

TEXAS GULF COAST

Completions

CHAMBERS COUNTY—			
R. L. Bartlett, Fisher 7, Barbers Hill		*	2160
COLORADO COUNTY—			
U. S. Oil & Gas Co., Swank 1, 6 mi s Rock Island		*	4050
FORT BEND COUNTY—			
Humble, Sugarland Industries 2, Sugarland	960		3672
The Texas Co., Bushnell 1, Boling.	500		3938
HARRIS COUNTY—			
Humble, Warren 4, Hockley		*	4828
VICTORIA COUNTY—			
Houston Oil Co., McFaddin 1, 11 mi ne Victoria		*	745
Alexander-Texas' Doelgner 1, 3 mi nw Mission		*	4045

AUSTIN COUNTY—Humble's A. Grawunder C-1, Raccoon Bend, dr 81 ft, sand and gravel; Beal 1, Raccoon Bend, dr 1032 ft rock; Bracey B-1, Raccoon Bend, dr 1014 ft rock; Walton 2, Raccoon Bend, ru; Grawunder B-1, Raccoon Bend, dr 2046 ft shale and lime; Urban 2, Raccoon Bend, dr 1730 ft shale and lime; Hardy 1, Raccoon Bend, ru. L. H. Weadock's Ward 1, sd 2260 ft. Gulf's Jackson 1, San Felipe, dr 2975 ft sand.

BRAZORIA COUNTY—Roxana's Allen 5, Allen dome, dr 3100 ft sandy lime rock; Reese 3, Allen dome, ru. Myers et al's Davidson 1, Clemens dome, spudded. F. A. Bartlett's Dannenbaum 8, ru to work over. Moody Corp.'s Jamison 1, Angleton, dr 4600 ft gbo. Empire O. & G. Co.'s Brock 1, Stratton Ridge, drk.

CHAMBERS COUNTY—Pure's Lost River 2, Lost Lake, dr 2165 ft gbo and lime; Lost Lake 1, Lost Lake dome, dr 3620 ft hard lime. R. L. Bartlett's Fisher 1, Barbers Hill, abn at 2160 ft. Mills Bennett's Kirby 2, Barbers Hill, lcn.

COLORADO COUNTY—Rich Oil Corp.'s Brun 1, 3 mi ne Columbus, dr 500 ft shale. Alexander & Smith's Kinkler 1, near Cat Springs, dr 2400 ft shale. U. S. Oil & Gas Co.'s Swank 1, 6 mi s Rock Island, abn 4050 ft.

FORT BEND COUNTY—Sun Oil Co.'s E. C. Farmer 4, Boling, ru; E. C. Farmer 5, Boling, dr 2880 ft sand. Gulf's Trone 9, Long Point, dr 3870 ft sand and shale; Wolf 12, Long Point, dr 520 ft shale; Moore 17, Moore's Field, dr 3712 ft gbo; E. C. Farmer 2, Boling, dr 2340 ft gbo. Scott & Peek's Armstrong 1, Boling, washing to bottom. Humble's Dew 1, Sugarland, dr 1281 ft rock; Sugarland Industries 2, Sugarland, completed at 3672 ft for 960 bbls on ¾-inch choke, 81 degrees temperature; Deathridge 1, Sugarland, td 4310 ft; Sugarland Industries 4, Sugarland, drk; Nelson 1, Sugarland, dr 1268 ft. J. H. Diehl's Armstrong 1, 2 mi e Boling, sd 500 ft. The Texas Co.'s Bushnell 1, Boling, completed at 3938 ft for 500 bbls oil and 20% water. South Texas Exploration Co.'s Hartfield 1, Needville, ru.

GALVESTON COUNTY—Long et al's Irvin & Bishop 1, 2 mi s Dickinson, sd 2675 ft. Republic Prod. Co.'s Lobit 1, 1 mi nw Dickinson, dr 1600 ft sand and shale.

GOLIAD COUNTY—J. E. Alexander's Campbell 1, 1 mi n Goliad, sd 825 ft.

HARDIN COUNTY—Chappel Hill Oil Co.'s Hale 1, 5 mi nw Sour Lake, sd 1810 ft.

HARRIS COUNTY—Torsen et al's Stewart 1, 4 mi sw Genoa, sd 691 ft. Hunt et al's Lobit 1, 4 mi n Goose Creek, sd 2145 ft. Humble's Warren 4, Hockley, abn at 4828 ft; Minnetex 1, Mykawa, dr 3921 ft shale. Cedar Bayou Oil Co.'s Johnson 1, 8 mi n Goose Creek, dr 3775 ft shale. Paxton et al's Brubacker 1, 1 mi ne Clodine, drk. J. A. Shine et al's Kitzman 1, 2 mi n Cypress, dr 2779 ft sand. Brain et al's Lentze 1, 4 mi s Tom Ball, sd 1120 ft.

JACKSON COUNTY — The Texas Co.'s Moore 1, Edna, dr 2561 ft sand. Wright Bros.' Drushell 8, Edna, dr 3140 ft shale; Classen 2, Edna, dr 3185 ft sand. Douglas & Lawrence's Lawrence 1, Edna, dr 3010 ft shale.

JEFFERSON COUNTY — Deep Test Oil Corp.'s Faith-McFaddin 1, 6000 ft east of Spindle Top, dr 2825 ft gbo. So. Spindle Top O. & Dev. Co.'s Young 1, 1 mi w Nederland, sd 3425 ft. Oswald Dome Synd.'s Oswald 3, 2 mi se Cheek, dr 3000 ft shale. Gaddy Oil Co.'s Johns 1, 1 mi nw Beaumont, coring 1585 ft. Beaumont Oil Co.'s Tyrrell 1, 2 mi w Brooks, drk. Westbury Syn.'s West 1, 1 mi ne Westbury, lcn. Gulf's Burrell et al 2, Fannett, dr 3278 ft sand and shale.

LIBERTY COUNTY—Barlow et al's Minchcliff 1, 2½ mi ne Cleveland, sd 2215 ft. Kouri et al's Campbell 1, 6 mi s Cleveland, sd 2000 ft. Big Dome Interests' Finley 2, 3 mi nw Hardin, drk; Finley 1, 3 mi nw Hardin, dr 4240 ft brown shale. The Texas Co.'s Davis 1, Davis Hill, dr 3232 ft sand rock. Humble's Sterling 3, Moss Bluff, dr 2411 ft sandy shale and lime; Welder 9, S. Dayton, dr 2795 ft gbo. Sun Oil Co.'s Kyle 1, Moss Bluff, dr 2925 ft shale and lime.

MATAGORDA COUNTY—Rycade's Hudson-Humble 3, Markham, dr 3890 ft. Dr. P. S. Griffith et al's Culver 1, e Citrus Grove, fsh 3215 ft; Baer 1, 1½ mi n Gulf Hill, sd 1900 ft.

ORANGE COUNTY—Veteran Oil Co.'s Reed 1, 2 mi se Orange field, dr 1425 ft shale.

VICTORIA COUNTY—Houston Oil Co.'s McFadden 1, 11 mi ne Victoria, abn at 745 ft. Alexander-Texas' Doelgner 1, 3 mi nw Mission, abn 4045 ft.

WASHINTON COUNTY—Lynne Oil Co.'s Heise 10, sd 1810 ft. Sun Oil Co.'s Grote 2, Clay Creek dome, ru; Marcus 1, Clay Creek dome, lcn; Eisman 1, Clay Creek dome, lcn; Schirmer 2, Clay Creek dome, lcn.

SOUTHWEST TEXAS

CALDWELL COUNTY—Golden West Oil Co.'s Wilson 2, Bruner field, flowing oil and water from 2730 ft, fsh for swab. Wheelock & Collins' Clark 1, Bruner field, dr 3050 ft in Georgetown. M. K. Towns' Hickman 1, Bruner field, dr 2455 ft chalk. J. S. Abercrombies' Moses 1, Bruner field, dr 600 ft shale. Sun Oil Co.'s Malone 2, Bruner field, dr 2165 ft shale. Luling O. & G. Co.'s Carter 3, dr 2772 ft, Edwards lime. T. C. Hadley's Tiller 1, Joe Bruner field, dr 2774 ft Georgetown. H. C. Ratcliff et al's Malone 1, Bruner field, dr 2200 ft shale. Suttle et al's Malone 1, Bruner field, sd 2532 ft. Pat Armstrong's Martin 1, ru to set cas, td 2637 ft.

DUVAL COUNTY—National Oil Co.'s Ball 2, lcn.

HIDALGO COUNTY—Queen City O. & G. Co.'s Amer. Land & Irrig. Co. 2, 3 mi n Mercedes, sd 700 ft.

JIM WELLS COUNTY—Cushing Oil Co.'s Perez 2, 3 mi n Alice, sd 2200 ft.

KINNEY COUNTY—Stephens et al's Clamp 1, sd 1800 ft.

MAVERICK COUNTY—Rycade's Chittam 2, Eagle Pass, dr 7325 ft lime; Sullivan 3, Eagle Pass, dr 3750 ft lime. Ryan Consolidated's India Land Co. 1, 24 mi se Eagle Pass, prep to abn; No. 2, lcn.

NUECES COUNTY—May et al's Gallagher 1, 12 mi w Corpus, dr 2110 ft. Agua Dulce Gas Co.'s Sponberg 1, Agua Dulce, dk. R. & G. Corp.'s Allen 1, Agua Dulce, lcn

SAN PATRICIO COUNTY—Saxet Oil Co.'s State 1, in Nueces Bay, fsh 1300 ft. C. I. Albertson et al's Boscamp 1, n Sinton, sd 1490 ft. La Prelle et al's White Point 1, dr 2340 ft gbo. Pickett et al's Whitworth 1, White Point, sd 3250 ft.

VAL VERDE COUNTY — Thraves et al's Wilson 1, sd 1125 ft. Valvert Oil Co.'s Bassett A-1, dr 1200 ft.

,, in an age of Specialization

We decided to specialize

The Fundamental Reason for the Gratifying Success of the Three Specialized Gulf Publishing Company Oil Journals

Our friends told us, when we decided to convert a successful general oil-industry publication, into three specialized oil journals that "we were taking a chance." But we knew we weren't. On every hand we had evidence of the trend toward specialization.

In architecture there were men who specialized in getting business, others who specialized in design, and others who specialized in the writing of specifications. In advertising there were copy specialists, layout specialists, media specialists. No longer was a man just "an engineer"—he was a mining engineer, a power plant engineer or some other specialized kind of engineer.

Even more important than these things was our knowledge of the oil industry. We knew that production, refining and marketing were three divisions as separate from each other as tanning of hides is from the sellling of shoes. We knew, moreover, that each of these branches was in itself an industry of immense proportions requiring the most specialized type of knowledge. We knew that the man identified with oil production was forced to extend himself to keep abreast of producing problems—without worrying about the refiner's job or the oil marketing situation. We knew that the man who specified bits does not specify cracking stills or filling station pumps.

These were the facts that gave birth, years ago, to THE OIL WEEKLY (for producers), THE REFINER, and THE PETROLEUM MARKETER. They express the characteristics that distinguish these papers from the general run of oil-industry publication. Each of the Gulf Publishing papers contains the basic news of the industry that the oil men want to know. Beyond that they have nothing in common. No reader, as one engineer puts it, "is forced to go through a lot of matter in which he is not interested in order to get to the information in which he is interested." No manufacturer is asked to advertise to marketers a product that appeals only to producers. There is 100% reader interest for the reader—100% value for the advertiser.

Has the specialized policy proved a sound one? Judge for yourself—THE OIL WEEKLY has the greatest number of producer readers ever presented on a single subscription list. THE REFINER has more refiner readers than any other publication in America. All three publications are enjoying a great and constantly increasing advertising patronage.

The story of specialization is an interesting one and an important one if your product is or could be sold to the oil industry. May we send you full details?

3 Industries within an Industry~

Gulf Publishing Company

3301 Buffalo Drive, Houston, Texas

NEW YORK	TULSA	CHICAGO	LOS ANGELES	PITTSBURGH
Dick Swinsky	J. F. Carter, Jr.	O. R. Waller	Wm. V. Gross	W. W. Pigue
Rooms 408-409, 250 Park Ave,	215-218 Atco Bldg.	624 So. Michigan Ave.	416-17 Haas Bldg.	510 Park Building

If you have producing wells where electricity is available and know anything about the reputation we have built with Jensen Straight Lift Jacks, you will be interested in—

The New Electric Pumping Unit

which has demonstrated the ability to produce more oil, while cutting power bills in half! Made for 2000, 3000 and 5000-foot wells through 2-inch tubing. Easy to set. Dependable. Absolutely weatherproof. Starterless crossline motor. Timken, Hyatt and S.K.F. bearings. Circular on request.

JENSEN BROS. MFG. CO.
COFFEYVILLE, KAN.
Export Office: 136 Liberty St., New York City

JENSEN JACKS
—and Pumping Units

There is Over 3,000,000 Feet of
JONES A. P. I. SPECIFICATION **SUCKER RODS**
Now In Use
"High Manganese" RODS
Made in Both Box and Pin and Double-Pin Types
S. M. JONES COMPANY, Toledo, Ohio
TULSA OFFICE: 422-423 McBIRNEY BLDG.

NORTHERN CALIFORNIA

Completions

KERN COUNTY—
Pacific Eastern Prod. Co.'s Hughes 1, 5-30-28 . ..... * 4990

KERN COUNTY

BAKERSFIELD — Pacific Eastern Prod. Co.'s KCL-4, dr 5212 ft.

BUTTONWILLOW — Milham Exploration Co.'s Wosdom 1, 16-28-23, sd 3055 ft.

COMANCHE POINT — W. W. Stabler's Tejon 1, 23-32-29, sdtr dr pipe 2870 ft.

DELANO—S. A. Delzel's Jones 1, 4-26-27, sd 3115 ft.

EDISON—General Petroleum's Seale 10, 5-30-29, new lcn. Midway Northern Oil Co.'s Brown 1, 29-29-30, sd 3890 ft.

GOULD HILLS—Bomke and Ball's Larson 1, 19-20-20, dr brown shale 1966 ft. Exeter Oil Co.'s Pray 2, 1-29-20, dr shale 710 ft. OzenaOil Oil Co.'s 1, 27-29-21, 8⅝-inch cas cmt. 2390 ft, td 2930 ft.

SHALE HILLS—Oildale Oil Co.'s 1, 13-27-18, will deepen from 560 ft.

RIO BRAVO—Pacific Coast Oil Co.'s 1, 15-19-25, rigging up to deepen.

SAN EMIDIO—Standard's KCL 6, 35-11-22, dr sand and clay 1277 ft. Union's KCL-1, 5-10-21, bldg rig.

SEMITROPIC—Lincoln Drilling Co.'s Kerwin 1, 21-26-22, failed on production test, td 3826 ft.

WASCO — Main Oil Co.'s 2, 28-27-24, sd 5275 ft.

SANTA BARBARA COUNTY

CARPENTERIA — Continental's Franklin 1, dr shale 200 ft.

SANTA BARBARA—Channell Oil and Development Co.'s 1, 29-4-27, dr sand 6286 ft. Scuthwest Producing Co.'s 1, 2-4-28, fsh 1560 ft.

VENTURA COUNTY

BARSDALE—Triple A Investment Co.'s Elkins 1, 28-4-19, pumping oil and water, td 2950 ft.

OJAI—Continental's Fox 1-M, re-dr 2025 ft; Thompson 1, 22-4-22, 10-inch cas cmt 2427 ft. R. E. Burke's 1, 11-4-23, dr shale 2910 ft. Miley's Casitas 2-A, co 750 ft. Rancho Riva Oil Co.'s 1, 28-4-23, dr shale 275 ft.

OXNARD—Shell's Grub 1, 22-2-22, dr hard sand 5326 ft.

PIRU—Petroleum Securities Co.'s Diablo 1, dr gray sand 6228 ft. Temescal Pet. Co.'s 5, 3-4-28, dr shale 2862 ft. Wasibi Oil Co.'s Bishop 2, 34-3-19, dr shale 2500 ft.

SANTA PAULA—W. W. Bryant's Anlauf 3, 21-4-21, dr shale 220 ft. San Pedro--Pt. Farmin's 1, 13-4-21, sr 675 ft.

SATICOY—Ohio Oil Co.'s 1, sw¼ 32-3n-21w, new lcn. Standard's Citrus 5, dr shale 2800 ft.

SIMI—Emma F. Exline's Seaton 1, 32-5-21, fsh for dr pipe 2410 ft. Pirate Oil Co.'s 1, 33-3-21, rigging up.

SOUTH MOUNTAIN — Ring Pet. Corp.'s Converse 1, 3-3-21, oil sand 4660 ft.

VENTURA—Star Pet. Co.'s Canet 1-A, sd 6775 ft.

MISCELLANEOUS

FRESNO COUNTY — Fresno-Madera Oil Co.'s 1, 18-12-21, co 4150 ft. Boatwright et al's 1, 27-19-19, rig. C. C. Friend's 1, 12-23-19, abn 135 ft.

KINGS COUNTY — General Petroleum's Oeschener 2, 22-26-18, will resume operations. Milham Exploration Co.'s Elliott 1, 2-22-17, blowing wild, td 7108 ft.

MADERA COUNTY—Los Angeles-Madera Synd.'s M. L. 1, 21-10-17, will deepen from 2790 ft.

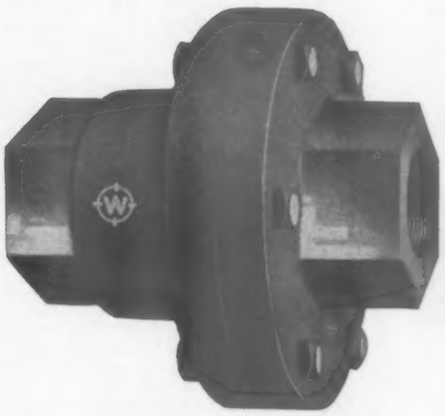
MONTEREY COUNTY—Marland's Naciemento 1, 32-24-11, repairing cas, td 4865 ft.

SAN LUIS OBISPO COUNTY—Dollar Oil Co.'s 1, 13-32-22, rig. Panorama Oil Co.'s 1, 7-31-21, dr shale 3045 ft. Union's Russ 1, 34-32-15, redr 2465 ft; Chandler 1, 13-32-15, dr shale 1963 ft.

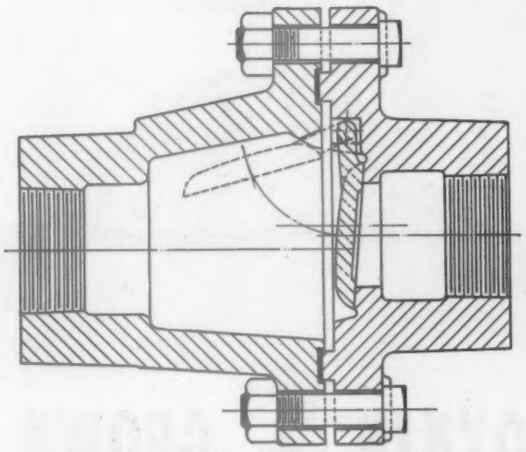
SAN MATEO COUNTY—Shell's Butts 1, 21-6-5, coring sand 3184 ft; Cowell 2, 8-6-5, oil showing 3690 ft.

SONOMA COUNTY—Shell's Doss 1, 16-inch cas cmt 205 ft.

TULARE COUNTY—Kings-Tulare Synd.'s 1, 29-23-27, sd 4330 ft.



STANDARD WEIGHT



SECTIONAL—EXTRA HEAVY

WALWORTH

Beckwith Pipe Line Swing Check Valves

For oil field service, furnished in standard and extra heavy weights, iron body and bronze disc. Extra heavy valves are made with tongue and groove joints, with lead gaskets.

Advantages of the lead gasket are apparent—resistance to corrosion, long durability, permanently tight joints. Extra heavy sizes also can be furnished lip for lead. This valve, due to its construction, serves the purpose of a check valve and a union. The views above show the external appearance of the Walworth Beckwith Pipe Line Swing Check standard valve and the internal construction of the extra heavy valve. Long thread connections are a distinctly advantageous feature, making for permanently tight joints and offsetting sagging in pipe lines. The valve disc hangs in a nearly vertical position and a minimum of pressure will open the valve. The construction also makes available the full pipe area when the valve is open and discharging. Furnished in 2″ and 3″ sizes standard, and 2″, 3″, 4″ and 6″ sizes extra heavy.

DISTRIBUTED BY

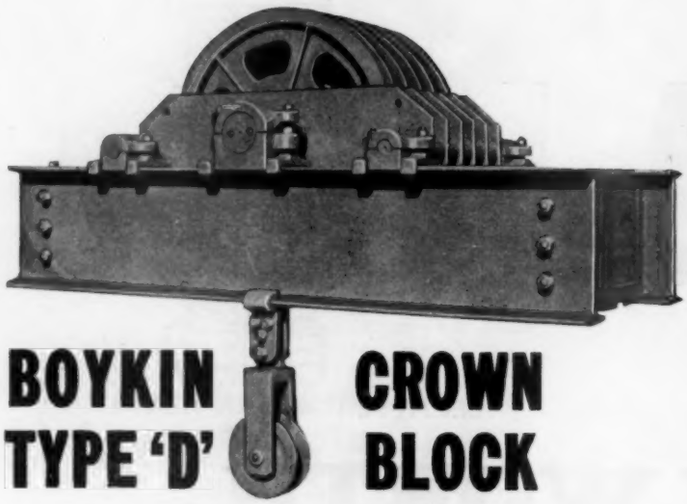
Republic Supply Company

General Office Houston, Texas

OIL AND GAS WELL SUPPLIES

ROTARY AND CABLE TOOLS

BOYKIN SPEED AND ENDURANCE GREYHOUND PRODUCTS



BOYKIN TYPE 'D' CROWN BLOCK

Companion to the Famous R. B. Traveling Block

The new TYPE "D" Crown Block with five sheaves on one pin speeds up your drilling operations.

Each sheave is equipped with American Heavy Duty Roller Bearings, that run on pack hardened races. All sheaves are evenly spaced assuring perfect alignment with the Traveling Block. The guard covering the sheaves prevents the lines from becoming disengaged from the grooves.

Sheaves are adjustable either way, self-oiled and perfectly balanced to reduce friction to a minimum.

It is rigidly mounted on I structural steel beams.

Try this new Crown Block and you will use no other.

BOYKIN MACHINERY & SUPPLY CO.

Manufacturers of "GREYHOUND" Equipment
BEAUMONT — HOUSTON, TEXAS

Ayer & Lord Tie Co.

Incorporated 1893

Railroad Cross Ties Lumber Poles

CHICAGO

Bridge Timbers Car Stocks Piling Posts

Treating Plants

Carbondale, Ill. Grenada, Miss. North Little Rock, Ark Louisville, Ky. Montgomery, Ala.

"WE SPECIALIZE IN TELEPHONE POLES"

SOUTHERN CALIFORNIA

BELLEFLOWER — World Pet. Corp.'s Blythe 1, sd 2915 ft.

CALABASAS—Easton & Smith's Morrison 1, sd 2955 ft.

CHATSWORTH—Russell Pet. Co.'s Joughin 2, dr shale 570 ft.

COSTA MESA—Mesa Pet. Co.'s B. and G. 1, 11-inch cas re-cmt 2500 ft, td 3250 ft.

DAVIDSON CITY—California Well Drilling Co.'s Del Amo 1, sd 7662 ft.

DOWNEY—Associated's Taylor 1, 33-2-12, gas showings reported at 4350 ft.

FULLERTON—Bastanchury Ranch Co.'s 1, 21-3-10, rig. Shell's Stern 1-1, dr hard sand 6073 ft.

GARDEN GROVE—Texas Co.'s 1, 35-4-10, new lcn.

HUNTINGTON BEACH—Western Drilling & Prod. Co.'s Pacific Ranch 1, sp.

INGLEWOOD—Ring Pet. Corp.'s Simons 1, sd 4350 ft. California Eastern Oil Co.'s Inglewood 1, rig.

LYNWOOD—Security Pet. Corp.'s Community 1, sd 5335 ft.

MONTEREY PARK—Monterey Park Pet. Corp.'s Jepson 1, dr shale 2550 ft.

NEWHALL — California Eastern Oil Co.'s Hasley 1, sp.

POMONA—Pomona Oil Assn.'s Community 1, dr hard sand 933 ft.

PUENTE — Anchor Pet. Co.'s Hudson 1, plugged back to 4800 ft for test. Richfield's Didier 1, dr 928 ft.

RIVERA—Empire Drilling Co.'s Purman 1, dr brown shale 4322 ft.

SAN FERNANDO—Shell's Mission 2, dr hard sand 4750 ft.

RIVERSIDE COUNTY—L. R. Clark's Banning 1, trying to set 8¼inch casing, td 1800 ft. Hall Pet. SCo.'s Watt 1, dr hard sand 865 ft.

SAN BERNARDINO COUNTY — Western Pacific Oil Co.'s 3, re-cmt 6¼-inch casing 3085 ft.

SAN DIEGO COUNTY—Torrey Pines Oil Co.'s 1, dr hard sand and lime 1680 ft. S. S. Turner's Baler 1, dr hard sand 1538 ft.

KANSAS

BARBER COUNTY—Barbara Oil Co.'s Blunk 1, c ne nw, 20-34-13w, dr 4570 ft.

BARTON COUNTY — McJilton et al's Evanston 1, sec nw, 34-17-11w, rig.

BUTLER COUNTY—LaRobb et al's Bronsenger 1, nec sw, 24-27-3, rig.

CHASE COUNTY—Griener & Fowler's Carson 1, nec ne, 9-21-7, sd 3150.

COWLEY COUNTY—Jones & Hall's Shapland 1, nec nw se, 20-30-6, abn 3396. T. B. Slick et al's Alspaugh 1, sw ne, 27-31-5e, dr 2032 ft.

EDWARDS COUNTY—Amarada-Wilcox O. & G. Co.'s Teansil 1, nw, 32-25-19w, dr 3290 ft.

ELLIS COUNTY—Rush Oil Co.'s Gatewood 1, nwc nw, 4-15-20w, sd 1100. Trans-Continental Oil Co.'s Boetcher 1, nwc se sw, 21-13-19w, dr 3060 ft. Phillips Pet. Co.'s Brull 1, c nw¼ 34-14-17w, sp and sd. Phillips' Shultz 1, c ne¼, 5-12-17w, dr 3030 ft. Labette Oil Co.'s Urbank 1, ne nw nw, 19-15-16w, sd 1800

GEARY COUNTY—Pioneer Oil Co.'s Chase 1, sec ne, 10-1-7, dr 3407 ft.

GREENWOOD COUNTY—P. H. Ballew's Bright 1, nec sw, 22-27-12, sd 1210 ft.

HARPER COUNTY—Amerada Pet. Corp.'s Mendiville 1, c se se, 24-34-6w, dr 5360 ft on iron. Sam Jarvis' Warneke 1, sec sw, 4-34-3w, sd 4686½ ft, wx 4678-83-700 ft, water in hole.

JEFFERSON COUNTY—Wichita Oil Co.'s Simpson 1, nwc sw sw, 19-10-17, ru and sd.

LANE COUNTY—Robinson et al's Dickerson 1, swc nw se, 11-18-27w, cemt 8-in 2625 ft.

MITCHELL COUNTY—Ben Gurley et al's Crombil 1, c ne ne, 32-9-7w, sd 3535.

MORRIS COUNTY—Hugh Faulder's Wendt 1, swc se se, 18-15-5e, moving in tools. Skelton et al's Iles 1, nwc nw, 25-16-5.

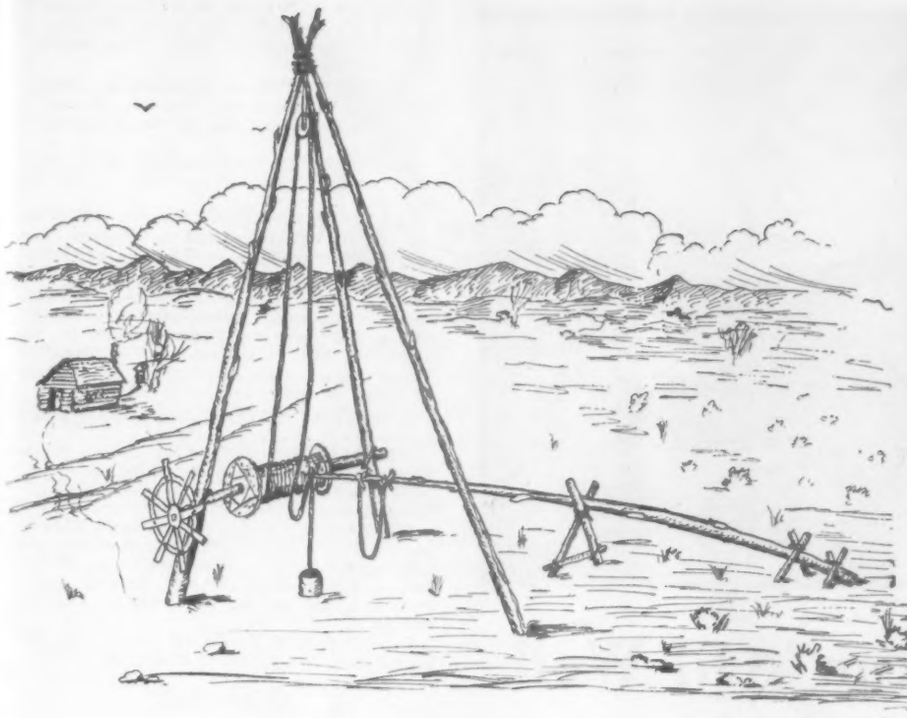
McPHERSON COUNTY — Galt- Brown's Blaine 1, c ne, 18-17-1w, sd 3354 ft mfw. John Heron's Vosshell 1, nec ne, 9-21-3w, sp and sd.

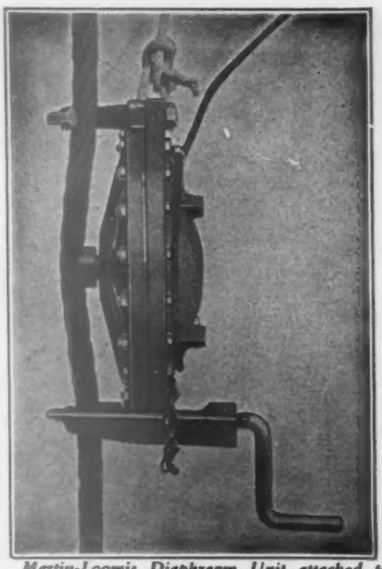
OTTAWA COUNTY—Anderson et al's Bank, nec nw, 28-10-2w, 2450 ft.

PAWNEE COUNTY—F. C. Troupe's Lovett 1, cel ne ne, 31-21-16w, sd 1560 ft.

RICE COUNTY—Allison & Fitzwilliams' Poland 1, nec sw ne, 36-19-8w, cellar.

ROOKS COUNTY—Phillips Pet. Co. s Over-





Martin-Loomis Diaphragm Unit attached to cable deadline

The Old *Hemlock* Engine

BACK in the days of '62, when drilling wells was not a complex proposition, all that a man needed to put down a "bore" was a lithe hemlock sapling and a strong right leg. And that's when Jim Martin, father of the inventor of the Martin-Loomis Weight Indicator, started drilling wells in Oil Creek, Pa. at the handsome salary of $1.25 per ten hour day.

Weight Indicating Gauge mounted on derrick girt constantly in view of driller

A lot of water has flowed under the bridge since Jim Martin's time but the rich experience of that hardy pioneer of the oil business has been handed down through two generations that have maintained a lifelong contact with the petroleum industry. This, then is the lineage of the most important development in oil field practice since the introduction of the rotary—namely the Martin-Loomis Automatic Recording Weight Indicator.

This hookup, the pioneer in the fields, eliminates the uncertainty of drilling by the "feel of the brake." It gives the driller an accurate indication at all times of the weight on the bottom or the weight on the hook. During the work of coring, fishing, or making hole, the Martin-Loomis Weight Indicator is always on the job guiding the driller and increasing the efficiency of all operations. Martin - Loomis equipment is now in use in oil fields all over the world. Its installation is the logical step of every practical progressive operator — one step farther away from the old hemlock engine days.

Recording Unit in belt house compiling a 24-hour graphic record of all drilling operations

Literature and complete information gladly sent upon request

MARTIN-LOOMIS CORPORATION

2827 Cherry Avenue, Long Beach, California, U. S. A.

Foreign Distributors
OIL WELL SUPPLY COMPANY
PITTSBURGH, PA.

AND THROUGH ALL SUPPLY STORES

Mid-Continent Distributors
REED ROLLER BIT COMPANY
HOUSTON, TEXAS

The "American" Oil Well Pumping Jack!

The "American" Totally Enclosed Oil Well Pumping Jack has been designed in answer to the demand for the efficient pumping of individual oil wells.

American Jacks are made in three sizes—twelve-inch to fifteen-inch stroke, fifteen-inch to eighteen-inch stroke, and eighteen-inch to twenty-two-inch stroke. All gears are totally enclosed and run in a bath of oil which floods the bearings, insuring, smooth operation and long life. The head proper may be disengaged from the cable and swung back from the walking beam, permitting the rods to be pulled without moving the jack itself. There are no screw mechanisms or adjustments necessary. No gears are exposed.

Compact, sturdy and economical in operation.

Ask for Bulletin 181

C. S. CARTER, Agent — Box 1511, Tulsa, Okla.

GENERAL OFFICES AND WORKS: AURORA, ILL.

THE AMERICAN WELL WORKS

Branch Offices:

Chicago, Ill., 1615 First National Bank Bldg.
New York, N. Y., Room 523—165 Broadway.
Los Angeles, Cal., 420 E. Third St.

District Sales Agencies:

Boston, Mass. — Vancouver, B. C., Canada. — Dallas, Tex. — Philadelphia, Pa.
Detroit, Mich. — Omaha, Neb. — Charlotte, N. C. — Kansas City, Mo.
Tulsa, Okla. — Birmingham, Ala. — Pittsburgh, Pa. — St. Paul, Minn.
Denver, Colo. — Joplin, Mo. — Roswell, N. Mex. — San Francisco, Calif.
St. Louis, Mo. — Atlanta, Ga. — Portales, N. Mex. — El Paso, Texas.
Salt Lake City, Utah.

EDGAR TOBIN AERIAL SURVEYS, Inc.

1515 MAIN AVE.

SAN ANTONIO, TEXAS

PHONE CROCKETT 3383

Aerial Mosaic Maps

holtzer 1, c se, 30-9-16w, dr 3273 ft. Empire G. & F. Co.'s Doodrill 1, nec se nw, 15-8-18w, dr 3253 ft. Krueger et al's Poore 1, nec ne, 14-8-16w, dr 2865 ft.

RUSH COUNTY — Valerious & Cheney's Sheverman 1, nwc se nw, 27-17-17w, dr 3367 ft. Sinclair's Beiching 1, nw ne nw, 9-16-16w, sd 704.

RUSSELL COUNTY—Midwest Exploration Co.'s Austin 1, nec ne, 36-12-16w, dr by pipe 3045 ft.

SALINE COUNTY—E. Esty et al's Peterson 1, c ne, 6-16-5w, sp and sd. Nathan Jones et al's Robertson 1, nw sw, 27-14-2w, sd 1500 ft.

SEDGWICK COUNTY—LaRobb Oil Co.'s Davis 1, ne sw se, 36-25-1w, rig up. Barnsdall Oil Co.'s Samuels 1, ne nw, 24-25-1e, dr 660 ft. Allison & Fitzwilliams' Doane 1, ne nw ne, 24-26-1w, dr 3018 ft, red rock. Van Zandt & Mason's Fox 1, c nw sw, 19-25-1w, set 20-in cas 80 inches in quick sand.

SEWARD COUNTY—Nelson and Ash Pyle's 1, nec ne, 14-33-33w, sd 5036 ft.

SHERMAN COUNTY—A. H. Henson et al's Murry 1, nec se nw, 22-7-40w, sd 3035 ft.

STEVENS COUNTY — W. Sidwell et al's Kelly 1, swc ne, 16-34-38w, sd 1160 ft.

SUMNER COUNTY—Geo. Dickey's Knox 1, swc ne, 3-33-1w, dr 3375 ft. Ostot et al's Volker 1, nwc ne, 9-35-1, rig. Davidson et al's Strickland 1, swc se, 12-35-1w, rig. Rolland et al's Pickens 1, nec nw ne, 27-30-14w, ur 6-in cas 3912 ft.

TREGO COUNTY—Central Commercial Oil Co.'s Ellis 1, nec sw ne, 20-13-21w, sd 1750 ft.

ARKANSAS

Completions

UNION COUNTY—		
Joe Marr et al, Sloan 1, 14-17-15 ...	*	3392
E. M. Jones, Stegall B-2, 10-18-14..	*	2265
CLEVELAND COUNTY—		
Ark. Nat. Gas Corp., T. J. Pate 1, 4-9x-11	*	3620

ASHLEY COUNTY—Atlantic O. P. Co.'s Moffatt 1, 28-16-8, tested salt water through d.s. 3250-78 ft, repairing rig 3291 ft in s.w. sand.

BRADLEY COUNTY—Hurley et al's Southern Lbr. Co. 1, 26-10-10, dk, torn down lcn abn td 21 ft.

CLARK COUNTY — McKenzie Oil Co.'s Eakins 1, 9-11-19, sd 1700 ft. Wm. Henry, Tr.'s Clark 1, 34-9-21, sd 1385 ft.

CALHOUN COUNTY — Phillips Pet. Co.'s Ark. Lank & Timber 1, 29-16-12, abn lcn, will not drill. Amerada Pet. Co.'s Matlock 1, 10-12-13, tested dry through d.s. 3273-77 ft, coring 3277 ft.

CHICOT COUNTY—W. S. Smith's Meyer 1, 14-19-2, sd 850 ft. J. C. Marcum's De Yambert 1, 5-19-4, sd w.o. 1500 ft. Joe Crawford's Cashion 1, 14-18-2, sd w.o. 1800 ft. S. D. Hunter's Sawyer 1, 19-18-2, dr 2950 ft.

COLUMBIA COUNTY—G. W. Dawley et al's Fullenwider & Kicheon 1, 12-17-22, sd, w.o. 2847 ft.

CLEVELAND COUNTY — Ark. Nat. Gas Corp.'s T. J. Pate 1, 4-9-11, dry, abn 3620 ft.

DALLAS COUNTY — Robt. H. Dedman's Hillman 1, 20-10-13, temp abn 1145 ft.

FAULKNER COUNTY—Gold Creek O. & G. Co.'s Stermer 1, 17-4-13, sd 3462 ft.

JOHNSON COUNTY — Ark. Nat. Gas Corp.'s Bynum 1, 13-10-24, set 6⅝-in cas 2996 ft, dr 3126 ft. Houston 1, 15-10-24, dr 1990 ft. O. L. Hudson 1, 14-10-24, dr 2737 ft.

LINCOLN COUNTY—Pine Prairie O. & G. Co.'s Carter 1, 33-10-6, sd w.o. 2126 ft.

LOGAN COUNTY—Ark. Nat. Gas Corp.'s W. H. Parks 1, 26-8-24, r to bottom td 3208 ft.

OUACHITA COUNTY—McDonald Bro.s' Wilson 1, 25-15-18, sd for fuel oil, td 2704 ft.

UNION COUNTY—McDonald Bro.s' Mayfield 1, 29-19-15, sd 230 ft. Rice et al's Heinman & Meyers A-1, 23-18-16, sd 1180 ft. Stark et al's Powell 1, 35-18-15, dk. Imperial O. & G. Co.'s Goodwin 1, 26-17-16, tested sw 2580-82 ft, arr to run testing tool 2583-86 ft. E. M. Jones et al's Stegall B-2, 10-18-14, would not pump cas pulled well abn td 2265 ft. Grimes Bros.' Hill 2, 7-18-14, party rigged up, w.o. Tate & Morefield's W. W. Smith 1, 6-18-13, dr 1950 ft. Marr et al's Sloan 1, 14-17-15, sw abn td 3392 ft. Tharpe Drilling Co.'s List 1, 25-17-15, ds stuck 3050 ft. Garrett-Modisette Drilling Co.'s Murphy Land Co. 1, 30-17-17, dr 1803 ft.

Walworth

At any time since the Walworth Manufacturing Company was founded in 1842 a very poor advertising man might build a very fine advertisement about any Walworth product, even as a sack suit became distinguished apparel on the back of Abraham Lincoln. "Whatever you build you need Walworth"—and where is the Oil Man who doesn't know it?

FRICK REID SUPPLY CORPORATION

Pittsburgh, Pa. STORES EVERYWHERE Tulsa, Okla.

Axelson Machine Co.
Sucker Rods, Pull Rods, Plunger Working Barrels (Pumps)etc.

Beaumont Iron Works Company
Dreadnaught Rotary Equipment Water-Cooled Drawworks, Pumping Hoists, Traveling Blocks, etc.

Donovan Boiler Works
Oil Country Boilers and Tanks

Frick-Reid Service Belting
Rubber Covered and Friction Surface.

National Transit Pump and Machine Co.
Power and Steam Pumps.

J. P. Ratigan
Grips, Clamps, Beam Hangers.

Joseph Reid Gas Engine Company
Gas and Oil Engines, two and four-cycle, Band Wheel and Direct Drive Pumping Powers.

Whitlock Cordage Co.
Manila Cordage, including Frick-Reid Manila Bull Ropes—same quality for ten years.

Jones & Laughlin Steel Corp.
Seamless and Lapweld Tubular Goods.

Walworth Company
Valves, Fittings and Tools for Steam, Water, Gas, Oil and Air.

Rossendale-Reddaway Company
"Camel Hair" Beltings, Belt Clamps.

Engineering Crews
for the installation of Pumping Powers and related equipment.

FORGED STEEL

VALVES
FLANGES
FITTINGS
ACID VALVES
NEILAN REGULATORS
TYCOS INSTRUMENTS
CAST STEEL FITTINGS
UNITED AIR CLEANERS
STEAM TRAPS

Shipments from Houston Stock

Maintenance Engineering Corp.
W. J. Peddie, *Pres.*
Telephone Preston 2274
HOUSTON, TEXAS

Selling Beyond Expectations

! ! ! !

What Do You Know About

Geological Structure **?**

Read

Continental Drift

THE AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS has just issued an entirely new book of special papers presented at the New York meeting by geologists of international reputation in the petroleum industry and university circles. Fourteen authors discuss fundamentals of structure of the earth's crust in "THEORY OF CONTINENTAL DRIFT." Application to problems of petroleum geologists indicated in foreword by E. DeGolyer, President Amerada Petroleum Corp. Leading paper by W. A. J. M. van der Gracht, Vice-President Marland Oil Co.

240 pp., 29 figs., 6x9 in. Cloth. Price, $3.50, postpaid. Address: American Association of Petroleum Geologists, Box 1852, Tulsa, Oklahoma.

NORTH LOUISIANA

BIENVILLE PARISH—Baca Drilling Co.'s State 1, 16-16-10w, temp abn 2561 ft. S. P. Borden's L. & A. 2, 1-15-8, sd 2560 ft. W. G. Wilkinson 1, 5-22-11, temp abn 3068 ft. Big Ben Oil Co.'s Stewart 1, 15-18-12, rig up. Gry, Tr.'s Johnson 1, 21-18-6, rig up.

BOSSIER PARISH—Ark. Nat. Gas Corp.'s Doern et al's Bolinger 1, 9-22-11, sd 4317 ft. Northwest La. Gas Co.'s Pinewoods Lbr. Co. 7, 33-23-11, wosr 3041 ft. Triangle Drilling Co.'s Bulkley 1, 9-20-13, tested s.w. in d.s. test 3124 ft. Walker et al's Antrim 1, 28-22-13, wait on testing tool, sd 2985 ft.

CADDO PARISH—David M. Dide's McGrary 1, 23-19-16, dr 150 ft. Gulf Ref. Co.'s Attaway 1, 1-18-15, dr 4090 ft.

CATAHOULA PARISH—Lochnager O. & G. Co.'s Taliaferro 1, 26-9-6e, sd 900 ft. Texas Co.'s Tensas Delta B-1, 4-10-6e, dr 2974 ft.

CLAIBORNE PARISH—Dixie Oil Co.'s Gilbert 1, 27-21-5w, dr 2214 ft. El Dorado Indian Chief Oil Co.'s Baker 1, 26-20-7, dr 1760 ft. C. T. Lue's Taylor 1, 29-22-6, lcn. Smitherman & McDonald's Miller 1, 17-23-8, dr 3050 ft.

DESOTO PARISH—Benedum & Trees' State 1, 22-14-12, dr 125 ft. Benson O. & G. Co.'s Jackson 1, 3-10-13, rig up. Carlton Drilling Co.'s Stephens 2, 12-11-16, sd 350 ft. R. O. Roy's Sample 1, 1-13-14, rig up. Whittaker 1, 4-13-13, arr to bail, td 2780 ft. Warren & Carruthers' Ramsey 1, 33-13-16, sd wo 1443 ft.

EAST CARROLL PARISH—Palmer Corp.'s Carroll Land Co. 1, 21-19-11e, sd repr rig, 2861 ft. Hamley 1, 27-20-11e, sdtr 2461 ft.

FRANKLIN PARISH—Davis et al's Moore 1, 12-11-6e, tested dry 685 ft, sd wo.

MADISON PARISH — Mid-American Pet. Co.'s Yerger 2, 51-16-14e, sd 285 ft. Ruston Drilling Co.'s Sondheimer 1, 24-18-11e, dr 2585 ft.

MOREHOUSE PARIS H —United Carbon Co.'s Bastrop 1, 18-21-6e, sd wo, 3175 ft.

NATCHITOCHES PARISH—Robeline O. & G. Co.'s Cassady 1, 7-8-9w, sd 1100 ft.

OUACHITA PARISH—Magnolia Pet. Co.'s Central 1, 1-19-4e, sd 185 ft. Ouachita Nat. Gas Co.'s D'Arbonne B-2, 25-19-2e, dr 2210 ft. Phillips et al's School Fee 1, 16-16-4e, sd 1930 ft.

RAPIDES PARISH—G. E. Silbertson's Willemach 3, 13-5n-4w, sd 2250 ft. Glenmora Pet. Co.'s Fee 1, 1-2n-2w, sd 3850 ft.

RED RIVER PARISH—Rock Pet. Co.'s Pierson 1, 12-14-11, sd w on cas 1761 ft.

RICHLAND PARISH — Ruston Drilling Co.'s Etheredge 1, 27-17-6e, lcn. Wilson et al's Buie 1, 17-15-7e, rig up.

SABINE PARISH—Doern et al's Pickering Lbr. Co. 1, 17-4-11, dr 4255 ft. R. L. Gray's Bowman-Hicks 2, 14-7-14, dk. Texas Co.'s Hamlin 1, 28-10-13, sd 3759 ft.

TENSAS PARISH—Enochs et al's Curry 1, 39-11-12, arr to test, td 3520 ft.

UNION PARISH — Carter & Wingfield's Clark A-1, 7-23-1e, lcn. Clark A-2, 7-23-1e, dr 2285 ft. Clark A-3, 8-23-1e, dr 700 ft. Hudson 2, 7-23-1e, sd wait fuel 2190 ft. Security Trust 2, 7-23-1e, dk. Security Trust 3, 23-23-1w, tested dry 2195 ft, dr 2205 ft. Jones & Mullins' McLeod 1, 13-19-1e, sd 200 ft. R. W. Rhodes' Upshaw 1, 14-23-2w, dk.

WEBSTER PARISH—Virgil Helm's Maxwell 1, 7-22-9, lcn. Jones et al's Elkins 1, 33-23-9, bailing to test, td 2690 ft. Magnolia Pet. Co.'s W. P. Bond 1, 5-22-9, rig up. H. H. Branton 1, 5-22-9, lcn. Branton 1, 5-22-9, lcn. Oakes-Roseberg 1, 29-23-9, sd wo 2775 ft. Northwest La, Gas Co.'s Pine Woods Lbr. Co. 8, 37-23-11, coring 3090 ft.

EAST TEXAS

BOWIE COUNTY—Hooks O. & G. Co.'s Rosenberg 1, King sur, wshng to bottom, td 3086 ft.

CAMP COUNTY—Rogers et al's Enfelt 1, Montgomery sur, sd wo 1979 ft.

CASS COUNTY—Davis & Pigg's Ed Lambert 1, Lambert sur, sd 1952 ft.

RED RIVER COUNTY—D. M. Buffington's Hoosier 1, Hughart sur, sd 1000 ft. Bert Longenheim's Atkinson 1, Lonson-Moore sur, dr 1052 ft. Johnson Pet. Co.'s Randolph 2, Dean sur, sd 1330 ft.

SHELBY COUNTY — Chapparral Oil Co.'s Holt 2, Mathew Moore sur, dr 1619 ft. Gulf Ref. Co.'s Pickering Lbr. Co. 1, Harvey sur, dr 3005 ft.

UPSHUR COUNTY—F. S. Freeland's Newsom 1, Butler sur, arr make ds test 2020 ft. Hudspeth 1, Jackson sur, dk pat.

MOUNTAIN STATES

UTAH

BOX ELDER—Utah Pennsylvanian Oil Co. 1, 3-10n-4w, dr 1280 ft. Leonora Raddatz Synd., 14-9n-8w, td 2135 ft, wtg for repairs.

CARBON—Price River Pet. Co.'s 1, ne 16-14s-10e, dr 2810 ft.

DUCHESNE—Utah Southern Pleasant Valley 1, 29-4-1, dr 250 ft.

GRAND—Utah Southern Salt Valley 1, 13-23-21, dr 1385 ft. Utah Southern's Shafer 1, 36-26-20, dr 2088 ft. Navajo Pet. Co., 2-20-21, dr 2500 ft. Intermountain Venture Co. 1, sw 27-21s-19, run 10-in to 1602 ft. Big Six Oil Co. and Utah Oil Refining Co.'s Randall 1, 10-22-19, sd 1710 ft. Brendell Sons' Crescent Eagle 2, 9-22-19, bldg perm camp, sd 100 ft. Perfection O. & G. Co.'s 3, 20-20s-22e, abn at 2200 ft.

NAVAJO RESERVATION—Continental Oil Co.'s Boundary Butte 1, 31-43-21, dr 3680 ft.

SAN JUAN—Boulder Knoll O. & G. Co., 17-34-25, prep to resum 2640 ft. Navajo Pet. Co. of Calif's. 1, 12-35-24, mvg in standard equipment.

UTAH—Diamond Oil Co.'s 3, ne 28-8s-4e, show at 1605 ft.

UINTAH—Maude Ellen Oil Co.'s 1, 28-3-21, dr 1225 ft. Utah Oil Refining Co.'s 4, 22-5s-22e, dr 1350 ft. Western Venture Corp.'s Krumvieda 1, 6-5s-21e, set cas 1040 ft.

WAYNE—Phillips Pet. Co., ne 16-27-16, set 8¼-in at 3550 ft.

COLORADO

ARCHULETA—Juanita Oil Co.'s Harvey 1, sw 4-32-3w, dr 625 ft.

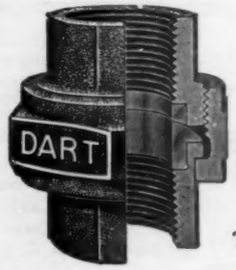
BENT—Marland Oil Co.'s Pipe Springs 1, se 27-29s-49w, dr 3660 ft.

JACKSON—Producers & Refiners' State 1, ne 2-6n-81w, dr 1300 ft.

LAS ANIMAS—Reiter-Foster and Phillips Pet. Co., 23-29n-56, bit trouble at 2575 ft. Alavier Pet. Co.'s Branson 1, ne 3-35s-58w, ready to sp. Parker Club-Kinney Coastal, Fee 1, 4-28s-68w, dr 1080 ft.

LA PLATA—Childers Dr. & Pr. Co.'s Dry

BRONZE TO BRONZE
Is the Reason
DART UNIONS
Give Service
Try them

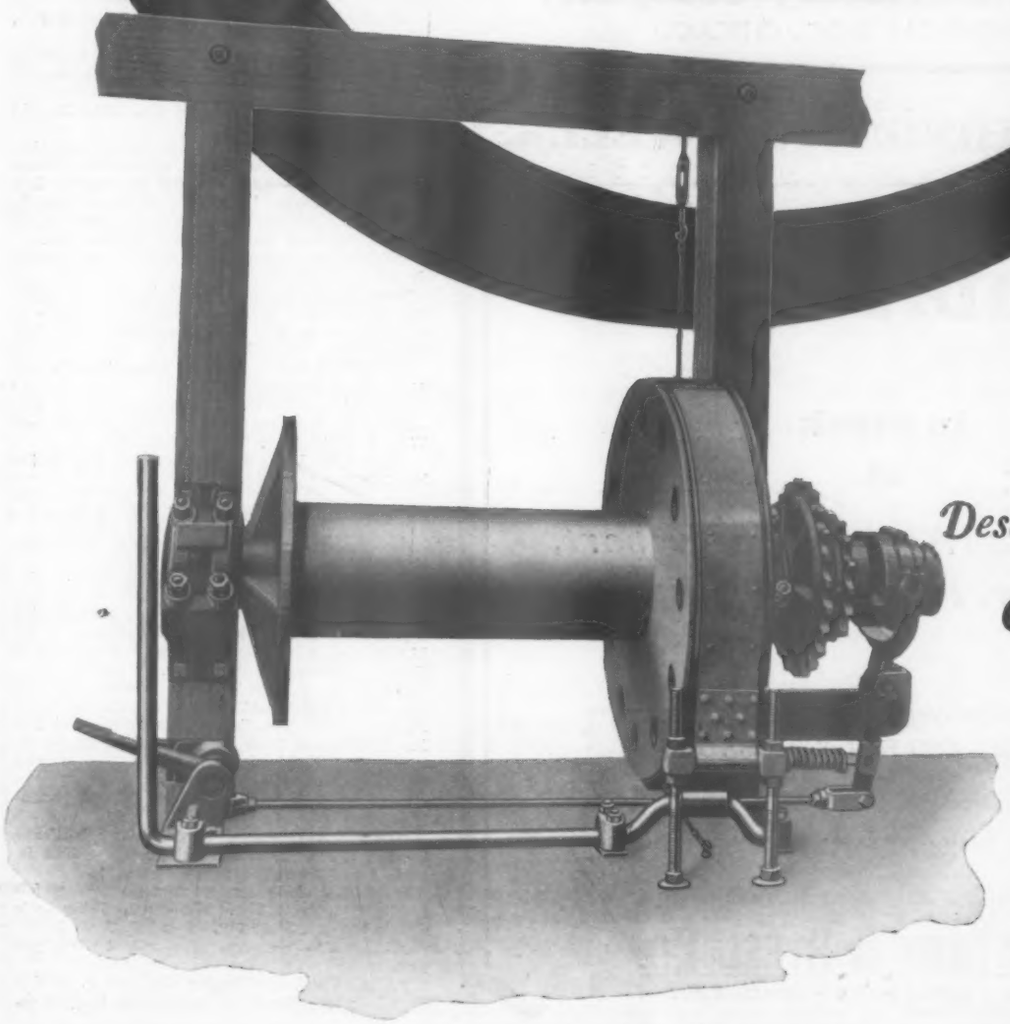


E. M. Dart Mfg. Company
PROVIDENCE, R. I.
The Fairbanks Company
Distributors

NATIONAL TUBING HOIST

Type "BJ"

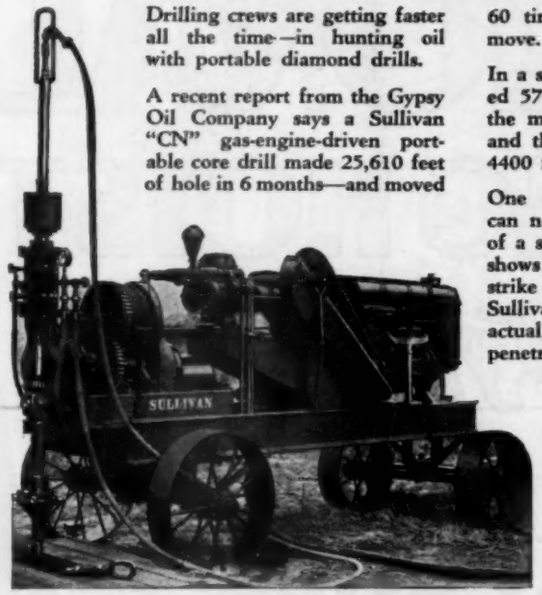
THE NATIONAL SUPPLY COMPANIES



Descriptive Bulletin No. 14N. On Request

Say you saw it in The OIL WEEKLY

Diamond Drill Bores 25,610 Feet, Moves 60 Times in 6 Months



Drilling crews are getting faster all the time—in hunting oil with portable diamond drills.

A recent report from the Gypsy Oil Company says a Sullivan "CN" gas-engine-driven portable core drill made 25,610 feet of hole in 6 months—and moved 60 times, 1 to 18 miles at a move.

In a single month the drill bored 5702 feet in 14 locations—the month before, 5404 feet—and the 6-months' average was 4400 feet a month.

One or two whole townships can now be tested for the cost of a single wildcat well—which shows nothing if it doesn't strike oil. Cores obtained by Sullivan Diamond Drills are actual samples of all the strata penetrated. They show the exact depth to the key bed, and enable the geologists to trace the anticline.

Have you sent for the free 80-page handbook, "Diamond Drilling for Oil?"

Sullivan Machinery Company
419 PEOPLES GAS BLDG., CHICAGO

EVERYTHING *for the* **OIL WELL**

Baroid Drilling Mud

In Stock
at

Houston, San Antonio, Shreveport, Monroe, Pyote and Pampa

SEND US YOUR ORDERS, OR WRITE TODAY FOR PRICES AND FULL INFORMATION

Largest Supply House in the Southwest

PEDEN IRON & STEEL CO.
HOUSTON – SAN ANTONIO – SHREVEPORT

Mesa 1, 29-32n-14w, refinancing 820 ft. Royal P. & R. Co.'s Red Mesa 1, 27-33n-12w, dr 100 ft.

LINCOLN—Kelly Oil Co.'s State 1, ne 36-14s-57w, dr 1415 ft.

MESA—Peerless Oil Co.'s Hoel 1, ne 23-8s-104, prep to deepen from 2058 ft.

MORGAN—Badger Creek O. & D. Co.'s Kent 1, sw 2-2n-57w, fsh 805 ft.

MONTROSE—Uncompahgre O. & G. Co., nw 27-50n-10, dr 790 ft.

MOFFAT—Ohio Oil Co.'s State 1, 16-12-100, dr 2555 ft. Alliance Oil Co.'s Milliken 1, 14-4n-92w, ready to shoot around 3575 ft. McCormick et al's Sales 1, se 28-4n-92w, straightening hole, to 2500 ft.

RIO BLANCO—White Eagle O. & R. Co., se 9-2s-96w, dr 435 ft.

ROUTT—Great Western Oil Co.'s State 1, 17-60n-56w, sd 2475 ft.

YUMA—Etnyre Synd., sw 7-2s-43, sd 900 ft.

WELD—Platte Valley Pet. Corp.'s Patterson 1, sw 24-6n-61w, dr 4117 ft.

MONTANA

BIG HORN—Whiteside et al, 21-6s-35e, dr 500 ft.

BLAINE—Ohio Oil Co.'s No. 1 Winngert, 3-34n-32e, cem 12½-in at 1550 ft. Arab Oil Co.'s Doble 1, se 3-34-22, dr below 1200 ft.

CASCADE—Winther et al's Rother 1, 11-22-1e, abn at 1750 ft. Lone Star Montana Oil Co., sw 13-21-3e, dr 750 ft. Eden O. & G. Co., 27-18-4e, sd 500 ft.

CARBON—Ohio Oil Co.'s Northern Pacific 1, 11-7s-21e, co to 4458 ft. Local Oil Co.'s 1, 25-9s-25e, dr 2150 ft.

CHOTEAU—Geraldine O. & G. Co., ne 1-21-11e, dr 1120 ft. Laffeal Oil Co., 6-10-25, moving in. Williamsson Shelby O. & G. Co.'s Flack 1, 12-28-11e, dr 2675 ft.

FERGUS—Mineral Research Co.'s 2, 13-17n-23e, fsh tools 975 ft. Melton Corp.'s 1, se 24-21n-17e, dr 2660 ft.

GALLATIN—California Co.'s Cottonwood 1, 35-5n-7e, rig up.

HILL—Jones Oil Co.'s Mangnell 2, ne 32-24-12, rig. McFarland et al's Boxelder 1, sw 15-30-13e, sd 1900 ft.

JUDITH BASIN—Gem Oil Co., 15-16-10e, rig up.

LIBERTY—Sunburst O. & R. Co.'s Bear's Den 1, nw 17-36-6e, fsh at 350 ft. Square Deal Pet.'s Johnson 1, se 1-32-7e, dr 3304 ft. Mid-Rockey Dev. Co.'s Federal Lands 1, 7-33-73, sd 1500 ft. Bear's Den Oil Co.'s Watford 1, 17-36n-6e, dr 575 ft. Western Natl. Gas Co., 27-37-4e, lcn.

MADISON—New Day Oil Co.'s 1, ne 2-59-1e, dr 940 ft.

PONDERA—Peerless Oil Co.'s State 1, 16-27-3w, dr 1885 ft. Hiland Oil Co.'s Van Daele 1, ne 35-30-3w, sd 3632 ft. Trapp Synd., 35-28-3w, dr 750 ft.

SWEETGRASS—Shoshone Consolidated's 1, 23-2n-15e, cas trouble 3720 ft.

TETON—Archet et al, 6-23-2w, dr 900 ft.

TOOLE—Monalta Oil Co.'s 1, 1-37-4w, sp. Wm. J. Mahan's 1, 10-31-1w, dr 1200 ft.

WIBAUX—Johns & Hagen, 23-11n-57e, dr below 750 ft.

WYOMING

ALBANY—Union of California's 1, 1-16-76, straightening hole at 225 ft.

BIG HORN—Utah Southern Oil Co.'s 3, 26-56n-97w, examining cuttings at 3763 ft. Producers & Refiners' 3, 24-56n-98, ripping bottom joint 8¼-in at 2706 ft. Ohio Oil Co.'s Colony 1, lot 57, cleaning out to save gas well. Prairie O. & G. Co.'s Chilcote 1, 35-56n-95w, sp 125 ft.

CARBON—P. & R.'s No. 3, 2-19-88, wtg drill pipe at 4003 ft. Red Feather Oil Co., 35-13-92, rig up. Indian Pet. Corp., ne 2-17n-89w, fsh 750 ft. P. & R.'s O'Brien Springs, 1-24-88, dr 300 ft.

FREMONT—Martin Falk, 9-31n-98w, attempt straighten crooked hole 2410 ft.

HOT SPRINGS—Texas Prod. Co., sw 23-45n-100w, sp.

JOHNSON—Matthew Foreman et al's Crazy Woman 1, 7-47-82, resum with rotary at 2000 ft, to drill to 3200 ft.

LINCOLN—Midwest Refining Co.'s Waterfall 1, 35-22-115, dr 1450 ft. Midwest Refining Co.'s Gray's River 1, 25-37-113, dr 135 ft.

NATRONA—Weisman et al's 2, 1-36-82, gas well.

PARK—Calif. Exploration Co. and P. & R.'s Pitchfork 1, 14-48n-102w, set 15½-in to 1330 ft.

Taking the WAIT *out of concrete*

"INCOR" CEMENT

Thompson No. 1 of the Amarillo Gas & Oil Co., Texas. Ten inch casing cemented at 2500 feet with "INCOR."

Johnson No. 2 of T. M. Deal, Borger, Texas. Twelve inch casing cemented at 775 feet with 103 bags of Lone Star followed by 47 bags of "INCOR." Drilled through in five days. Perfect job.

DERRICK CORNERS, foundation beds, casings—all jobs where time out for cement or concrete to cure means delayed production—should be made with "INCOR." "Placed today, ready for use tomorrow"—that's the "INCOR" time schedule.

"INCOR" is the Perfected High-Early-Strength Portland cement. Cement work done with "INCOR" is ready to use in 24 hours.

With "INCOR" a well goes into production in a matter of days instead of weeks. For your next job specify "INCOR". It will show you speed that has a money value.

"INCOR" Perfected High-Early-Strength PORTLAND CEMENT

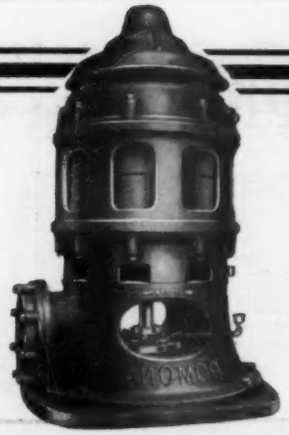
Made and Guaranteed by the Manufacturers of Lone Star Cement

International Cement Corporation
342 Madison Avenue New York

One of the world's largest cement producers—13 mills . . . total annual capacity 20,000,000 barrels

SUBSIDIARIES

ALABAMA PORTLAND CEMENT CO. Birmingham Alabama
INDIANA PORTLAND CEMENT CO. Indianapolis Indiana
THE CUBAN PORTLAND CEMENT CORP. Havana Cuba
LONE STAR CEMENT CO. OF PA. Philadelphia Pennsylvania
THE KANSAS PORTLAND CEMENT CO Kansas City Missouri
VIRGINIA PORTLAND CEMENT CORP. Norfolk Virginia
KNICKERBOCKER PORTLAND CEMENT CO., Inc. Albany New York
LOUISIANA PORTLAND CEMENT CO. New Orleans Louisiana
ARGENTINE PORTLAND CEMENT CO. Buenos Aires Argentina
TEXAS PORTLAND CEMENT CO. Dallas and Houston Texas
URUGUAY PORTLAND CEMENT CO. Montevideo Uruguay



PUMP WITH POMONA

Oceans of pure, undefiled water delivered at a minimum cost is the result of pumping with Pomonas. They maintain highest efficiency,—frequently 20% higher, because they are properly designed and constructed. Put a Pomona on your well and your water worries are over.

Water Lubrication, Sand-Proof Bearings, Non-Rusting Shaft in bowls. Special bearings in heads

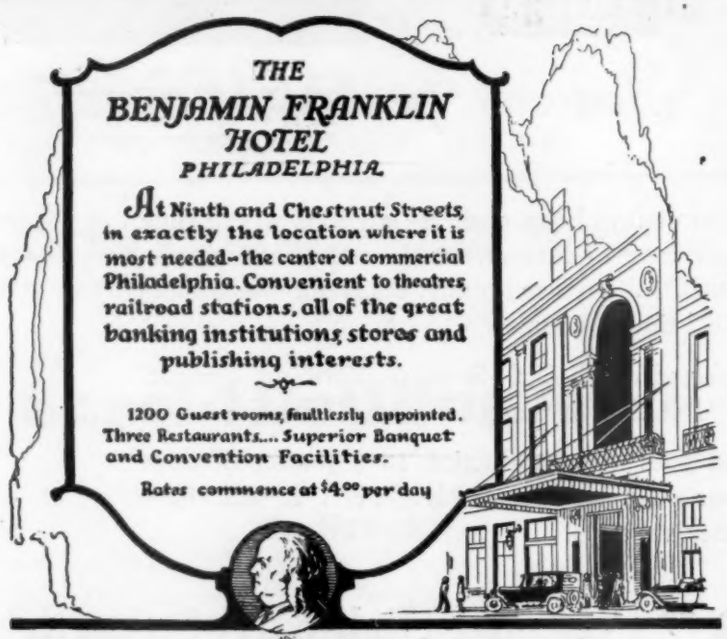
Southern Engine & Pump Company
Houston, Texas

THE
BENJAMIN FRANKLIN
HOTEL
PHILADELPHIA

At Ninth and Chestnut Streets, in exactly the location where it is most needed—the center of commercial Philadelphia. Convenient to theatres, railroad stations, all of the great banking institutions, stores and publishing interests.

1200 Guest rooms, faultlessly appointed. Three Restaurants.... Superior Banquet and Convention Facilities.

Rates commence at $4.00 per day



Under Direction STATLER OF AMERICA
HORACE LELAND WIGGINS, Managing Director

CARBON (BLACK DIAMONDS)
FOR DIAMOND CORE DRILLS

—IMPORTERS—
INDUSTRIAL DIAMONDS
—MANUFACTURERS—
DIAMOND POINTED TOOLS FOR ALL MECHANICAL PURPOSES

WRITE OR WIRE FOR CATALOGUE AND FULL PARTICULARS
THE DIAMOND DRILL CARBON CO.
PARK ROW, NEW YORK, N.Y. CABLE ADDRESS, CREDOTAN, N.Y.

S. C. Ferdig et al's Nelson 1, 4-51-102, set 12½-in at 778 ft. Oregon-Wyoming Oil Co.'s 1, sw 30-52-101, dr 805 ft. Ohio Oil Co.'s Pulley 1, 27-53-101, pull pipe at 4752 ft.

SUBLETTE—California Co.'s Wyss 1, 12-32n-115w, dr 929 ft. California Co.'s Buchnell 1, 11-29-115, dr 1715 ft. California Co.'s Buchnell 2, 11-29n-115w, sd for winter at 2067 ft.

SWEETWATER — Prairie O. & G. Co.'s Tucker 1, 18-13-99, roads closed by snow, total depth 2078 ft. Ohio Oil Co.'s Humphreys 1, 2-12-101, dr 425 ft. Sormir Pet. Co., 13-21-100, sd 1330 ft. Hiland Oil Co.'s Jackson 1, se 2-20-104, lcn. Hiland Oil Co.'s Lennon 1, se 32-21-103, lcn. Vermilion Oil Co., sw 16-12-99, sp.

UINTA—California Co.'s U. P. 1, 7-17-116w, dr 1843 ft. Winston Oil Co.'s 1, ne 23-14-118, dr 790 ft, oil and gas showing.

WESTON—Wyoming Drilling Syndicate, ne 15-44n-64w, dr below 3600 ft.

NEW MEXICO

CHAVES—Snowden & McSweeney, Merchant 1, nw 27-15s-23e, dr 3150 ft. R. E. Neal et al, Russell 1, 21-14s-25e, undrr at 1100 ft. Warman et al 1, sw 23-13s-24e, stand 215 ft.

DeBECA—Matador Oil Co., State 1, sw 6-4n-20e, stand 514 ft. McAdoo Pet. Corp., McAdoo 1, ne 16-1s-27e, ready to resume, td 4190 ft.

GUADALUPE—Navajo Oil Co., Goard 1, 10-3n-17e, td 2565 ft, rebldg rig.

LEA—Midwest Refining Co., Farnsworth 19, 12-26-37w, dr 3725 ft. Marland, Eaves 1, 19-26-37, fsg 3000 ft; Sholes 1, 19-25s-37e, fsg tools at 3034 ft; Lynn 1, 26-23-36, dr 2900 ft; King 1, ne 26-25s-32e, dr 3230 ft; Brooks 1, sw 8-20s-33e, dr 3000 ft; Danciger 1, 7-23-36e, dr 2700 ft; Reed 1, 22-20s-36e, ready to spud; Meyers 1, 26-20s-37e, dr 270 ft; Warren 1, 29-20s-36e, rig; Lockhard 1, 31-21s-36e, dr 700 ft; Slattery 1, 7-22s-34e, dr 812 ft. Gypsy Oil Co., State 1, 34-21s-36e, try to kill 25 M gas at 3352 ft; State 1, 34-21s-36e, fsg tools, 3241 ft. Exprolation Co., Record 1, 26-19s-35e, td 4556 ft. Morton et al, State 1, ne 32-11s-38, wtg cas 415 ft. Texas Prod. Co., Sheppard 1, ne 6-26s-37e, dr 2900 ft. Texas, Cagle 1, se 9-26s-36e, dr 2809 ft. Texas, Moberly 1, se 17-26s-37e, dr 1200 ft. Brodages et al, Hughes 1, 27-19-18w, contr compl to 4010 ft. Curtis Dr. Co., Nixon 1, 22-18s-34e, wait pipe, td 1150 ft. C. E. Reynolds Dr. Co., Anderson 1, 29-13s-37e, dr 4900 ft. Cranfill and Reynolds, State 1, se 23-26s-36e, dr 1635 ft. Skelly Oil Co., Joiner 1, se 26-25s-36e, dr 3005 ft. Rector Oil Co., Maechtel 1, sw 5-26s-33e, standing. Maljamar Oil & Gas Corp., Pearsall 2, 30-17s-32e, dr 215 ft. Empire G. & F. Co., State 1A, nw 12-21s-34e, rig up.

ROOSEVELT—J. T. Keegan et al, Pepper 1, 6-1s-36e, mvg in.

SAN JUAN—Continental Oil Co., Munoz 17, 2-29-19, sidetr tools, td 6330 ft. Huntington Park Oil Co., 29-30-9, spdg at 70 ft. Huerfano Oil Co., Wiltbank 1, 25-29-11, stndg 800 ft. San Juan Pet. Co., 1, 9-29-13w, sd 2950 ft. Kirrland Dr. Co., Hunt 1, 10-29-15, td 450 ft. Kutz Canon O. & G. Co., Day 1, 29-28-11, dr 310 ft. Midwest Refining Co., State 1, se 36-22n-14w, dr 1821 ft. Blackrock Oil Co., 1, sw 11-25n-13w, dr 1250 ft. Iowa Oil Syn., Viles 2, 28-29-11, undrr, td 665 ft. Angel Peaks Oil Co., Kutz Oil Co., Kutz Canon 1, 11-28n-11w, dr 515 ft. R. R. Burke et al, Deneen 1, 18-21-13, dr 327 ft. Fidelity Oil Co., Abrams 2, nw 23-29-11, dr 800 ft. Hall et al, 1, 31-22n-13w, dr 895 ft.

SAN MIGUEL—E. Adams et al, Deason 1, 14-15n-16e, sd 1235 ft. H. E. Hoover Co., San Juipuela 1, se 18-17n-17e, stand. 2000 ft. Benedict et al, Benedict-Wilson 1, ne 25-17n-16e, dr 250 ft.

TORRANCE—Bluhall O. & G. Co., 1, 20-6n-10e, dr 1421 ft. Hall et al, Pinos Wells 1, sw 25-2n-13e, stndg 400 ft.

VALENCIA—Acme Oil Co., New Mexico-Arizona Land Co., 1, 26-6-3, dr 3595 ft.

OKLAHOMA

WOODS COUNTY—T 28n, R 18w, Sec. 11, George Vincent et al's Freedom 1, c sw, ponds.

HARPER COUNTY—T 27n, R 21w, Sec. 24, A. F. Kopisch Oil Co.'s M. Selman 1, nec se, spudded and sd.

WOODS COUNTY—T 27n, R 15w, Sec. 20, Sooner State Oil Co. & R. E. Black's Marcum 1, c sw, spudded and sd.

GRANT COUNTY—T 26n, R 4w, Sec. 34,

Pop learns the value of specialists.

"Here, Lad—

Your argument that we should place our order for arc welders with Lincoln because they're welding *specialists* doesn't hold water.

If Lincoln made a thousand other electrical items they would still have specialists in the welding department."

Only "Stable-Arc" Welders have all these features

Variable Voltage.
Laminated Magnetic Circuit.
Separately-excited Generator Field.
Double Control of Welding Heat.
Steady Arc Throughout Entire Welding Range.
All Steel Construction.
Full Capacity for either Metallic or Carbon Arc Welding.

These features make welding easier. Results—better welds and greater output.
Ask any Operator!

"Yes, Pop—

but go to 'specialists' like that with a problem that requires executive attention or deviation from standard practice and see where you get off.

But when the whole thought of the whole organization is arc welding, as with Lincoln—you get your answer in five minutes — that's all they talk about.

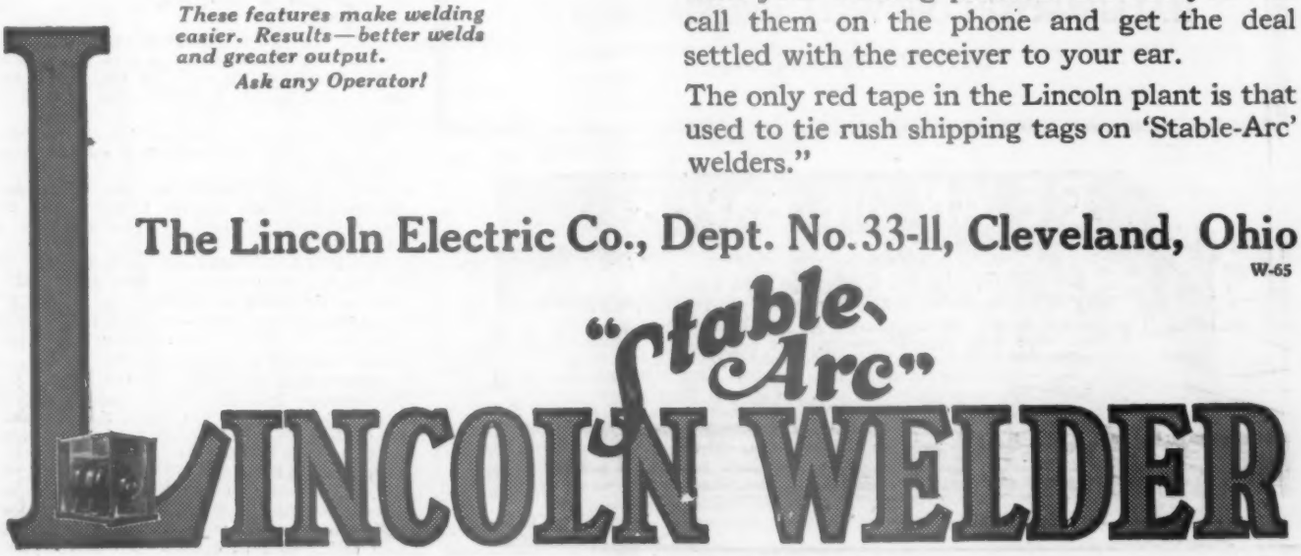
When you traded in your auto last week you went to an agency where you could talk to someone in authority and settle the deal to your best advantage.

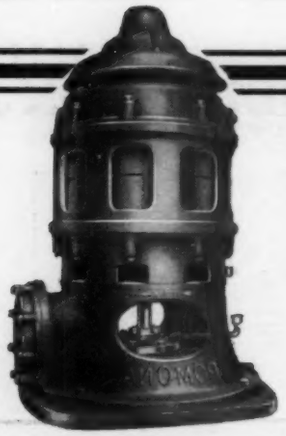
Even if all makes of welders were equally good (see left panel), I'd still say 'Go to Lincoln' with your welding problem because you can call them on the phone and get the deal settled with the receiver to your ear.

The only red tape in the Lincoln plant is that used to tie rush shipping tags on 'Stable-Arc' welders."

The Lincoln Electric Co., Dept. No. 33-ll, Cleveland, Ohio

W-65





Water Lubrication, Sand-Proof Bearings, Non-Rusting Shaft in bowls. Special bearings in heads

PUMP WITH POMONA

Oceans of pure, undefiled water delivered at a minimum cost is the result of pumping with Pomonas. They maintain highest efficiency,—frequently 20% higher, because they are properly designed and constructed. Put a Pomona on your well and your water worries are over.

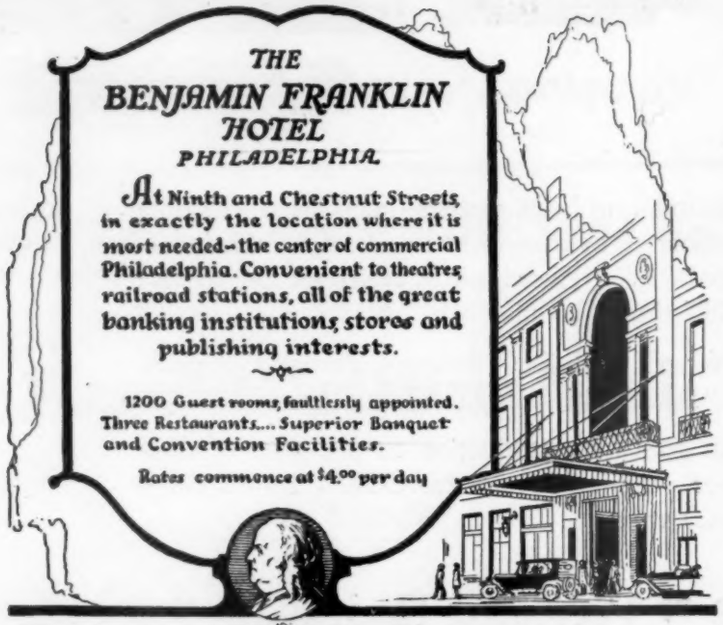
Southern Engine & Pump Company
Houston, Texas

THE
BENJAMIN FRANKLIN
HOTEL
PHILADELPHIA

At Ninth and Chestnut Streets, in exactly the location where it is most needed—the center of commercial Philadelphia. Convenient to theatres, railroad stations, all of the great banking institutions, stores and publishing interests.

1200 Guest rooms, faultlessly appointed. Three Restaurants.... Superior Banquet and Convention Facilities.

Rates commence at $4.00 per day



Under Direction HILTON OF AMERICA

HORACE LELAND WIGGINS, Managing Director

CARBON (BLACK DIAMONDS) FOR DIAMOND CORE DRILLS

—IMPORTERS—
INDUSTRIAL DIAMONDS
—MANUFACTURERS—
DIAMOND POINTED TOOLS FOR ALL MECHANICAL PURPOSES

WRITE OR WIRE FOR CATALOGUE AND FULL PARTICULARS
THE DIAMOND DRILL CARBON CO.
PARK ROW, NEW YORK, N.Y. CABLE ADDRESS, CREDOTAN, N.Y.

S. C. Ferdig et al's Nelson 1, 4-51-102, set 12½-in at 778 ft. Oregon-Wyoming Oil Co.'s 1, sw 30-52-101, dr 805 ft. Ohio Oil Co.'s Pulley 1, 27-53-101, pull pipe at 4752 ft.

SUBLETTE—California Co.'s Wyss 1, 12-32n-115w, dr 929 ft. California Co.'s Buchnell 1, 11-29-115, dr 1715 ft. California Co.'s Buchnell 2, 11-29n-115w, sd for winter at 2067 ft.

SWEETWATER — Prairie O. & G. Co.'s Tucker 1, 18-13-99, roads closed by snow, total depth 2078 ft. Ohio Oil Co.'s Humphreys 1, 2-12-101, dr 425 ft. Sormir Pet. Co., 13-21-100, sd 1330 ft. Hiland Oil Co.'s Jackson 1, se 2-20-104, lcn. Hiland Oil Co.'s Lennon 1, se 32-21-103, lcn. Vermilion Oil Co., sw 16-12-99, sp.

UINTA—California Co.'s U. P. 1, 7-17-116w, dr 1843 ft. Winston Oil Co.'s 1, ne 23-14-118, dr 790 ft, oil and gas showing.

WESTON—Wyoming Drilling Syndicate, ne 15-44n-64w, dr below 3600 ft.

NEW MEXICO

CHAVES—Snowden & McSweeney, Merchant 1, nw 27-15s-23e, dr 3150 ft. R. E. Neal et al, Russell 1, 21-14s-25e, undrr at 1100 ft. Warman et al 1, sw 23-13s-24e, stand 215 ft.

DeBECA—Matador Oil Co., State 1, sw 6-4n-20e, stand 514 ft. McAdoo Pet. Corp., McAdoo 1, ne 16-1s-27e, ready to resume, td 4190 ft.

GUADALUPE—Navajo Oil Co., Goard 1, 10-3n-17e, td 2565 ft, rebldg rig.

LEA—Midwest Refining Co., Farnsworth 19, 12-26-37w, dr 3725 ft. Marland, Eaves 1, 19-26-37, fsg 3000 ft; Sholes 1, 19-25s-37e, fsg tools at 3034 ft; Lynn 1, 26-23-36, dr 2900 ft; King 1, ne 26-25s-32e, dr 3230 ft; Brooks 1, sw 8-20s-33e, dr 3000 ft; Danciger 1, 7-23-36e, dr 2700 ft; Reed 1, 22-20s-36e, ready to spud; Meyers 1, 26-20s-37e, dr 270 ft; Warren 1, 29-20s-36e, rig; Lockhard 1, 31-21s-36e, dr 700 ft; Slattery 1, 7-22s-34e, dr 812 ft. Gypsy Oil Co., State 1, 34-21s-36e, try to kill 25 M gas at 3352 ft; State 1, 34-21s-36e, fsg tools, 3241 ft. Exprolation Co., Record 1, 26-19s-35e, td 4556 ft. Morton et al, State 1, ne 32-11s-38, wtg cas 415 ft. Texas Prod. Co., Sheppard 1, ne 6-26s-37e, dr 2900 ft. Texas, Cagle 1, se 9-26s-36e, dr 2809 ft. Texas, Moberly 1, se 17-26s-37e, dr 1200 ft. Brodages et al, Hughes 1, 27-19-18w, contr compl to 4010 ft. Curtis Dr. Co., Nixon 1, 22-18s-34e, wait pipe, td 1150 ft. C. E. Reynolds Dr. Co., Anderson 1, 29-13s-37e, dr 4900 ft. Cranfill and Reynolds, State 1, se 23-26s-36e, dr 1635 ft. Skelly Oil Co., Joiner 1, se 26-25s-36e, dr 3005 ft. Rector Oil Co., Maechtel 1, sw 5-26s-33e, standing. Maljamar Oil & Gas Corp., Pearsall 2, 30-17s-32e, dr 215 ft. Empire G. & F. Co., State 1A, nw 12-21s-34e, rig up.

ROOSEVELT—J. T. Keegan et al, Pepper 1, 6-1s-36e, mvg in.

SAN JUAN—Continental Oil Co., Munoz 17, 2-29-19, sidetr tools, td 6330 ft. Huntington Park Oil Co., 29-30-9, spdg at 70 ft. Huerfano Oil Co., Wiltbank 1, 25-29-11, stndg 800 ft. San Juan Pet. Co., 1, 9-29-13w, sd 2950 ft. Kirrland Dr. Co., Hunt 1, 10-29-15, td 450 ft. Kutz Canon O. & G. Co., Day 1, 29-28-11, dr 310 ft. Midwest Refining Co., State 1, se 36-22n-14w, dr 1821 ft. Blackrock Oil Co., 1, sw 11-25n-13w, dr 1250 ft. Iowa Oil Syn., Viles 2, 28-29-11, undrr, td 665 ft. Angel Peaks Oil Co., Kutz Oil Co., Kutz Canon 1, 11-28n-11w, dr 515 ft. R. R. Burke et al, Deneen 1, 18-21-13, dr 327 ft. Fidelity Oil Co., Abrams 2, nw 23-29-11, dr 800 ft. Hall et al, 1, 31-22n-13w, dr 895 ft.

SAN MIGUEL—E. Adams et al, Deason 1, 14-15n-16e, sd 1235 ft. H. E. Hoover Co., San Juipuela 1, se 18-17n-17e, stand. 2000 ft. Benedict et al, Benedict-Wilson 1, ne 25-17n-16e, dr 250 ft.

TORRANCE—Bluhall O. & G. Co., 1, 20-6n-10e, dr 1421 ft. Hall et al, Pinos Wells 1, sw 25-2n-13e, stndg 400 ft.

VALENCIA—Acme Oil Co., New Mexico-Arizona Land Co., 1, 26-6-3, dr 3595 ft.

OKLAHOMA

WOODS COUNTY—T 28n, R 18w, Sec. 11, George Vincent et al's Freedom 1, c sw, ponds.

HARPER COUNTY—T 27n, R 21w, Sec. 24, A. F. Kopisch Oil Co.'s M. Selman 1, nec se, spudded and sd.

WOODS COUNTY—T 27n, R 15w, Sec. 20, Sooner State Oil Co. & R. E. Black's Marcum 1, c sw, spudded and sd.

GRANT COUNTY—T 26n, R 4w, Sec. 34,

Pop learns the value of specialists.

"Here, Lad—

Your argument that we should place our order for arc welders with Lincoln because they're welding *specialists* doesn't hold water.

If Lincoln made a thousand other electrical items they would still have specialists in the welding department."

Only "Stable-Arc" Welders have all these features

Variable Voltage.
Laminated Magnetic Circuit.
Separately-excited Generator Field.
Double Control of Welding Heat.
Steady Arc Throughout Entire Welding Range.
All Steel Construction.
Full Capacity for either Metallic or Carbon Arc Welding.

These features make welding easier. Results—better welds and greater output.
Ask any Operator!

"Yes, Pop—

but go to 'specialists' like that with a problem that requires executive attention or deviation from standard practice and see where you get off.

But when the whole thought of the whole organization is arc welding, as with Lincoln—you get your answer in five minutes — that's all they talk about.

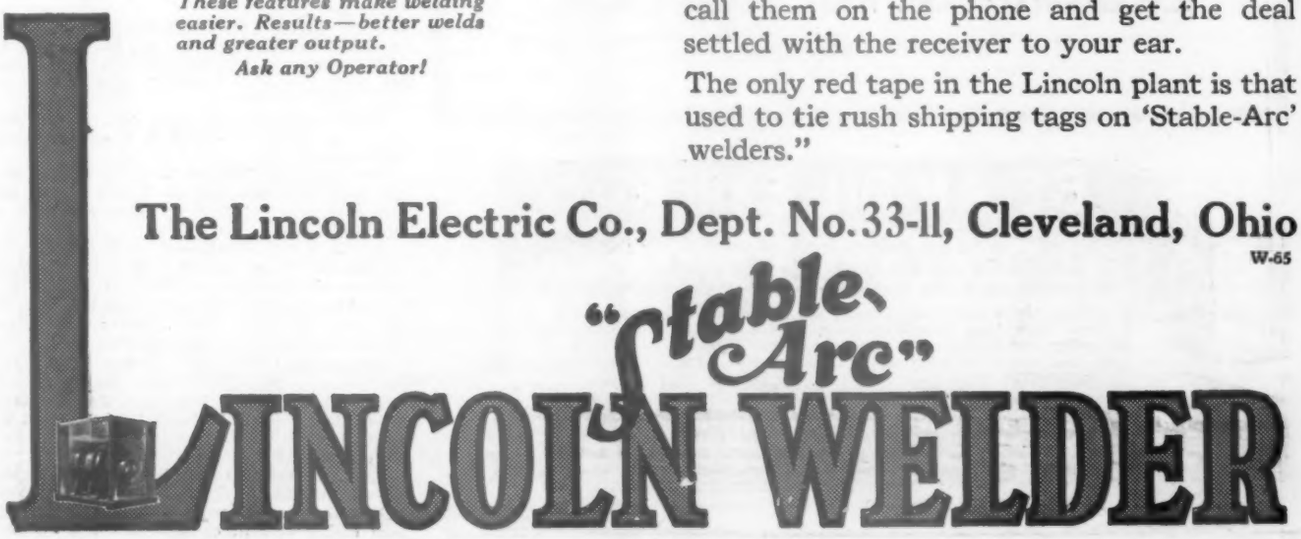
When you traded in your auto last week you went to an agency where you could talk to someone in authority and settle the deal to your best advantage.

Even if all makes of welders were equally good (see left panel), I'd still say 'Go to Lincoln' with your welding problem because you can call them on the phone and get the deal settled with the receiver to your ear.

The only red tape in the Lincoln plant is that used to tie rush shipping tags on 'Stable-Arc' welders."

The Lincoln Electric Co., Dept. No. 33-11, Cleveland, Ohio

W-65



BUY OR RENT USED PIPE

and Save the Difference

We have the following pipe in Oklahoma that was purchased new and used in one well:

300′	20″	90-lb. used casing
475′	15½″	70-lb. used casing
1000′	12½″	50-lb. used casing
2200′	10″	40-lb. used casing
2000′	8″	32-lb. used casing
3800′	6⅝″	24-lb. used casing

We will rent this casing or any other pipe which you may need. Let us finance your operations by carrying your pipe and casing investment for you.

BRANCH STORES
Wichita Falls, Holliday, Vernon, Breckenridge, Texas

EASTERN HEADQUARTERS
Butler, Penna.

Keystone Pipe & Supply Co.

HOLMES BUILDING
FORT WORTH, TEXAS

Bargains in Rebuilt

Gardner Duplex Steam Pumps

Thoroughly Rebuilt and in First Class Mechanical Condition

2 - 10″ x 4½″ x 10″

4 - 10″ x 4″ x 10″

3 - 10″ x 3½″ x 10″

Price subject to prior sale - - $450.00 Each

F. O. B. Duncan, Oklahoma

HALLIBURTON OIL WELL CEMENTING CO.

DUNCAN, OKLAHOMA

BE AN OIL EXPERT

To KNOW the Oil Game—is just another way of saying—To Make Big Money! Trained men in every branch of the oil industry are in demand. Geologists, Oil Drillers, Pipe Line Superintendents, Pipe Line Builders, Refiners (Chemists and Still Men), Oil Salesmen, Oil Mechanics—all earn a great deal more than what similar time and labor bring in other fields.

We Teach You How
Our practical course will teach you the geology of the oil fields, drilling methods, refining and marketing. It costs very little. No university today has the course that so completely covers the oil industry. Write today for Free Booklet.

Clip and Mail Today
Petroleum Engineering University
Dept. 331 Ft. Wayne, Ind.
Gentlemen: Please send me without obligation your FREE booklet. "Petroleum Engineering."
Name .....
Address .....

Sooner State Oil Co.'s Royce 1, swc nw, sd 550 ft.

KAY COUNTY—T 26n, R 2e, Sec. 32, J. A. Vincent & Nat'l Union's McNeal 1, nwc ne, sd 2795 ft.

HARPER COUNTY—T 25n, R 22w, Sec. 14, Hoffer Oil Co.'s Cooper 1, nwc se, sd 4182 ft, litigation.

GRANT COUNTY—T 25n, R 4w, Sec. 22, Cowden's Vollner 2, nec se ne sw, lost tools 5640 ft, sd.

NOBLE COUNTY—T 24n, R 3e, Sec. 11, George Miller et al's Howe 1, c nw se, dry and abn, 4500 ft.

TEXAS COUNTY—T 1n, R 18 E.C.M., Sec. 11, Three Way Oil Co.'s Price 1, sec nw, sd 3490 ft.

WOODWARD COUNTY—T 24n, R 17w, Sec. 32, Otstot Dev. Co.'s Simmons 1, sec, sd 1500 ft.

WOODS COUNTY—T 24n, R 13w, Sec. 18, Miller et al's Copenhaver 1, nwc, spudded and sd.

GARFIELD COUNTY—T 24n, R 6w, Sec. 9, Pulse & Beamer's White 1, sec nw, sd 4755 ft.

WOODWARD COUNTY — T 23n, R 20w, Sec. 9, Billy Oil Co.'s Wyatt 1, c se, sd 500 ft. T 21n, R 19w, Sec. 15, Burgoyne Bros. 1, swc se ne, ur 8-inch 1810 ft. T 21n, R 21w, Sec. 25, Sharon's Elmore 1, swc, sd 3025 ft, rig blown down.

GARFIELD COUNTY—T 20n, R 4w, Sec. 9, Marland Oil Co.'s Looman 1, nec se, sd, casing parted 5735 ft. Sec. 12, Marland Oil Co.'s Miller 1, swc, sd 4586 ft.

DEWEY COUNTY—T 18n, R 15w, Sec. 9, Huckleby & McCoy's Perfect 1, nec, 4395 ft, sd.

LOGAN COUNTY—T 18n, R 3w, Sec. 33, Haley & Consolidated Drlg. Co.'s Quier 1, sec sw, dr on iron 3969 ft. T 18n, R 2w, Sec. 21, Tibbetts & Bond's Donahue 1, swc nw se, dr plugs 4630 ft.

KINGFISHER COUNTY — T 16n, R 7w, Sec. 6, Gault-Brown Oil Co.'s Campbell 1, c nw se, 4516 ft, dry and abn. T 16n, R 6w, Sec. 27, Crawford & McKenna's Sturgeon 1, nec sw, dr 4560 ft.

BLAINE COUNTY—T 15n, R 12w, Sec. 26, W. J. Donley's Dickens 1, sec ne, dr 4030 ft.

CANADIAN COUNTY—T 14n, R 6w, Sec. 9, A. D. Spears' Piatt 1, swc ne, sd 3223 ft.

OKLAHOMA COUNTY—T 13n, R 3w, Sec. 18, Slick & Bailey's Lufkin 1, c ne se, sd 4510 ft. T 12n, R 3w, Sec. 15, Cromwell et al's Thompson 1, swc ne ne, fsh cas 6982 ft. T 11n, R 3w, Sec. 24, I. T. I. O. Co.'s Park 1, c se se, dr 5767 ft, gas mudded off.

OSAGE COUNTY—T 25n, R 6e, Sec. 25, Amerada's 1, nec sw, fsh bit 2893 ft.

PAWNEE COUNTY—T 22n, R 5e, Sec. 33, Washoma Oil & Gas Co.'s Buffalo 1, sec nw, dr 2925 ft.

LINCOLN COUNTY—T 16n, R 4e, Sec. 15, J. V. Bailey et al's House 1, c ne se, ru rotary. T 15n, R 6e, Sec. 23, Shaffer O. & R. Co. et al's Pinkston 1, nec sw, dr 1910 ft. T 12n, R 6e, Sec. 10, Kingwood Oil Co.'s Jennings 1, swc, dr 2450 ft.

CREEK COUNTY—T 14n, R 9e, Sec. 1, Shaffer O. & R. Co.'s Polk 1, nwc ne se, dr 2045 ft.

OKFUSKEE COUNTY—T 13n, R 10e, Sec. 8, Dixie Oil Co.'s Drew 1, nec sw, dr 2445 ft.

MUSKOGEE COUNTY—T 13n, R 18e, Sec. 33, L. T. Haynie's Linder 1, c se, 2290 ft co rep, boiler.

McINTOSH COUNTY—T 12n, R 18e, Sec. 15, A. B. Wolfe et al's Beck 1, nwc se, spudded and sd.

PITTSBURG COUNTY—T 9n, R 16e, Sec. 32, Pattison et al's McDuff 1, swc nw se, 3M gas 4613-35 ft, td 5456 ft, bailer and 4000 ft of line in hole.

HASKELL COUNTY—T 9n, R 18e, Sec. 10, Marion Oil Co.'s Sanders 1, nwc ne sw, MM, 1800 ft, rig pulled in, re-bldg.

LATIMER COUNTY—T 5n, R 18e, Sec. 15, Limestone O. & G. Co.'s Murray 1, swc, set 10-inch at 1900 ft, sd csg trouble.

SEMINOLE COUNTY—T 11n, R 6e, Sec. 27, Fuhrman Pet. Co.'s Fay 1, sec nw sw, dr 4410 ft, bad hole. T 10n, R 7e, Sec. 18, Shaffer O. & R. Co. et al's Jones 1, hfw 4710 ft, pb to 3715 ft, sd.

POTTAWATOMIE COUNTY—T 9n, R 4e, Sec. 13, Atlantic & Gypsy's Deleware 1, sec ne ne, 8-inch 3990 ft. T 9n, R 5e, Sec. 30, Magnolia's Germany 1, sec nw, show oil, cmtg 8-inch casing 4005 ft, bailing. T 8n, R 2e, Sec.

——two well known BARTLESVILLE products that you should know more about.

Forged Steel Braden Heads

Because of its more modern superior design and *forged steel* (can't break) construction, the BARSCO Braden Head renders a *longer service*. *More economical* because fewer replacements. Approximately *less than one-half the weight* of the ordinary cast iron head.

The *forged steel* from which the head is made has a carbon content of from 50 to 60 points and tensile strength of from 90,000 to 110,000 pounds. Will stand up under the most severe service—*no danger of breakage*. Write for prices, sizes and weights.

For working pressures up to 4000 pounds

"Barsco" Forged Steel Braden Heads are provided with an inner thread into which a short piece of casing is screwed. The head is then lowered into position below the derrick floor and set up. Outlets are threaded for 2-inch or 3-inch pipe. These heads are furnished with rubber rings for packing and a split steel ring which can be removed, allowing the couplings to be pulled through head without breaking any connections. Furnished with either solid or split Stuffing Box.

Hydraulic Stop Cock

—Unbreakable Parts —No Replacements

The "stop cock" that the oil field has long wanted. Has a longer life—requires no replacement of parts and can be kept in service longer than other types of plug valves. Ordinary valves or stop cocks seldom last thruout one installation—while in comparison and on actual service test BARTLESVILLE stop cocks have been put in use and reused on up to six well installation and are still in steady service at this writing.

Here are a few important BARTLESVILLE features:

(1)—Adapted for steam, water, gas, oil or air and *especially for Rotary Slush Pumps.*
(2)—Made in sizes of 1¼", 1½", 2", 2½", 3" and 4".
(3)—No grease to collect dirt, form scale and cause sticking.
(4)—Specially designed packing in both ends.
(5)—Fifteen (15) ton lift on core, 14" wrench, positive operation—no hammering.
(6)—One quarter turn of wrench to open and close.
(7)—Core (or plug) can't break or stick.
(8)—Made of special Bartlesville steel—indestructible.
(9)—Pressure—2000 lbs., safety factor to meet all requirements.
(10)—Can be packed under pressure, open or closed.
(11)—Original installation only—no removal for upkeep.
(12)—First cost is your only cost. Unbreakable parts—no replacements.

Bartlesville Supply Co.
of Missouri
3400 MAURY AVE., ST. LOUIS, MO.
Export Office: 150 Broadway, New York City
Oklahoma Warehouse:
Tulsa—J. H. Kountz, 218 East Brady St.
Texas Warehouse:
Amarillo—J. G. Lockard, 504 Western Ave.
STOCKS CARRIED BY DEALERS

HEYDRICK'S NEW MAPS
WEST TEXAS

County Maps
Combination Maps

Descriptions and prices on application.

HEYDRICK MAPPING COMPANY
Wichita Falls, Texas.

McCollum Exploration Company

Contracts taken for Seismograph Work

UNITED STATES	FOREIGN COUNTRIES
5522 Connecticut Ave.,	1211 Esperson Bldg.,
WASHINGTON, D. C.	HOUSTON, TEXAS

PHILLIP MAVERICK
PETROLEUM GEOLOGIST
Rust Bldg.
SAN ANGELO, TEXAS

Southern Blue Print & Supply Co.

Complete Blue Printing Service

Photostating; Map Mounting
Lithoprint Reproduction; Supplies

510½ Travis St. Houston, Texas

C. W. WEBSTER

West Texas Oil and Gas Leases
⅞ *Mineral Deeds*
ROYALTIES

15 Years in Texas
Reference: Mercantile Agencies

Petroleum Building
FORT WORTH, TEXAS

TEXAS SAND & GRAVEL CO., Inc.
Waco, Colorado and Amarillo, Texas
Washed and Screened Gravel and Sand, Pea Gravel, Dredged Pit run Gravel, Road Gravel, and railroad ballast.

Home Office:	*Plants:*	
1904 Amicable Bldg.,	Waco	Tascosa
Waco, Texas	Texland	Ady
Phone 4467 and 4468	Colorado	Saragosa

SERVING ALL THE TEXAS FIELDS

24, Superior's Jones 1, swc nw ne, fsh 4920 ft. T 8n, R 4e, Sec. 15, Phillips' Sparkman 1, sec sw, top Cromwell sand 3975 ft, td 4065 ft, co.

SEMINOLE COUNTY—T 8n, R 8e, Sec. 4, McCullough's McGilbray 1, swc ne, rigging up stand.

HUGHES COUNTY—T 8n, R 9e, Sec. 18, Pure Oil Co.'s Fixico 1, nec sw, 8-inch at 4010 ft. T 8n, R 10e, Sec. 1, Bauer et al's Penn 1, nwc sw ne, ts 2842 ft, td 2885 ft, 8M gas, ur 8-inch.

CLEVELAND COUNTY—T 7n, R 1w, Sec. 15, Sooner Oil Co.'s Vandeveer 1, nec nw sw, sd 3120 ft.

POTTAWATOMIE COUNTY—T 7n, R 2e, Sec. 17, T. B. Slick's Spangler 1, nwc se nw nw, cmtg 6-inch, 5041 ft. T 7n, R 5e, Sec. 14, Champlin's Harber 1, swc ne sw, dr 1970 ft.

SEMINOLE COUNTY—T 7n, R 6e, Sec. 7, Simon & Beam's Palmer 1, nec nw ne, rig. Sec. 17, Empire's Harjo 1, sec nw se, dr 4050 ft. T 6n, R 7e, Sec. 4, Shaffer's Carolina 1, sec sw ne, Wilcox 4865 ft, td 4875 ft, plugging.

HUGHES COUNTY—T 6n, R 8e, Sec. 32, T. B. Slick's Epperly 1, nwc ne nw, top Wilcox 4552-76 ft, top 2nd Wilcox 4624 ft, td 4670 ft, hfw, D&A.

McCLAIN COUNTY—T 5n, R 3e, Sec. 29, Empire's Bonner 1, sec nw nw, bldg rig.

SEMINOLE COUNTY—T 5n, R 6e, Sec. 11, T. B. Slick's Harjo 1, nwc ne, Hunton lime 3505-3550 ft, show oil, dr 3610 ft.

HUGHES COUNTY—T 5n, R 9e, Sec. 17, E. W. Whitney's Huddleston 1, sec sw, sd 2315 ft.

GARVIN COUNTY—T 4n, R 3e, Sec. 10, Garland Oil Co.'s Strickland 1, swc nw sw, dr 3040 ft.

PONTOTOC COUNTY—T 4n, R 4e, Sec. 20, Roxana's Smith 1, nwc sw, dr 1215 ft.

COAL COUNTY—T 2n, R 8e, Sec. 5, Wichtex Oil Co.'s Folsom 1, c nw nw, lcn.

MURRAY COUNTY—T 1n, R 2e, Sec. 17, Revels & McGee's Wolfe 1, nwc sd, 1358 ft.

COAL COUNTY—T 1n, R 8e, Sec. 35, W. E. McGraw et al's Patton 1, swc se ne, ts 4770 ft, td 4793 ft, hfw, pb to 1907 ft. T 1n, R 9e, Sec. 24, Galbreath et al's Jones 1, swc se, dr 1500 ft.

CUSTER COUNTY—T 14n, R 14w, Sec. 1, W. E. Witt's Wellman 1, c se, sd, litigation.

CADDO COUNTY—T 12n, R 11w, Sec. 15. Abernathy & Ashton's 1, c nw, sd 4510 ft.

ROGER MILLS COUNTY—T 11n, R 26w, Sec. 4, L. C. Hivick's Davis 1, c nw ne, 700 ft, sd.

CADDO COUNTY—T 10n, R 12w, Sec. 28, Magnolia's Shelby 1, swc, dr 4370 ft.

BECKHAM COUNTY—T 8n, R 25w, Sec. 1, E. L. Martin's 1, nwc se, dr 420 ft. T 8n, R 21w, Sec. 33, Day Oil Co.'s Ault 1, c nw nw, sd 60 ft.

KIOWA COUNTY—T 7n, R 15w, Sec. 35, David Malernee's Van Kirklan 1, nwc, sd 858 ft. T 6n, R 15w, Sec. 6, Johnson-McDowell's 1, c sw ne, sd 1750 ft.

CADDO COUNTY—T 6n, R 12w, Sec. 29, W. J. Hartley's Gilbreath 1, sec nw se, owdd, sd 3394 ft.

GRADY COUNTY—T 5n, R 6w, Sec. 31, Wirt Franklin Pet. Corp.'s Long 1, sw c ne, lcn. T 3n, R 7w, Sec. 4, Commerce Dev. Co.'s Blunt 1, c ne nw, cmtg 6-inch 2436 ft.

JACKSON COUNTY—T 1n, R 20w, Sec. 4, Altus Dev. Co.'s Northington 1, nec, sd 1100 ft.

STEPHENS COUNTY—T 1n, R 7w, Sec. 2, Stahl & Burris' Jefferson 1, sec ne nw, dr 1125 ft.

JACKSON COUNTY—T 1s, R 20w, Sec. 33, Stanley-McGregor's 1, swc nw sw, sd, 1800 ft.

STEPHENS COUNTY—T 1s, R 7w, Sec. 12, Ilsing, Russell & nance's Houston 1, nec sw sw, sd 966 ft.

KIOWA COUNTY—T 2s, R 16w, Sec. 6, Landfair's 1, sec sw se, 2510 ft, sd.

COTTON COUNTY—T 2s, R 9w, Sec. 33, C. E. Crane's Sturgeon 1, c nw ne, sd 3505 ft. T 4s, R 12w, Sec. 16, Guiler & Pyson's Thomas 1, sec sw, show oil and gas at 1252-54 ft, dr 1310 ft.

TILLMAN COUNTY—T 5s, R 15w, Sec. 3, A. N. Pearson's Indian 2, twin to No. 1, dr 750 ft.

JEFFERSON COUNTY—T 5s, R 8w, Sec. 28, Amerada's Emerson 1, nwc se mm sw, d&a at 4516 ft.

JOHNSON COUNTY—T 1s, R 7e, Sec. 29, Smitty-Kinsley's Lane 1, sec nw, fish 948 ft.

PETTY GEOPHYSICAL ENGINEERING COMPANY, Inc.
706 Travis Bldg. San Antonio, Tex.

Experienced seismograph crews available for consulting work. Only latest equipment and methods used.

Geophysical departments established for oil companies. Complete seismograph, radio and blasting equipment carried in stock, sold only in connection with establishing departments.

PATENTS
Patents Obtained and Trade Marks and Copyrights Registered

HARDWAY & CATHEY
428-29-30 Bankers Mortgage Bldg
Phone Preston 4790 Houston, Texas

JOHN F. WEINZIERL
CONSULTING GEOLOGIST
ADVISOR ON GEOPHYSICAL INSTRUMENTS
619 Petroleum Bldg., Houston, Texas

TANKS FOR SALE—Two 500 barrel bolted steel tanks, one 2000 barrel bolted steel tank, one 5000 barrel bolted steel tank, three gasoline pumping engines, rotary drilling rig and miscellaneous equipment. Will sell all or any part of this equipment f.o.b. cars or on lease at High Island. R. S. Carter, Phone 1240, Galveston, Texas.

HIRSCH, BROWN AND SUSMAN
Attorneys at Law
Bankers Mortgage Building,
Houston, Texas
Specializing in Oil Law and Land Law

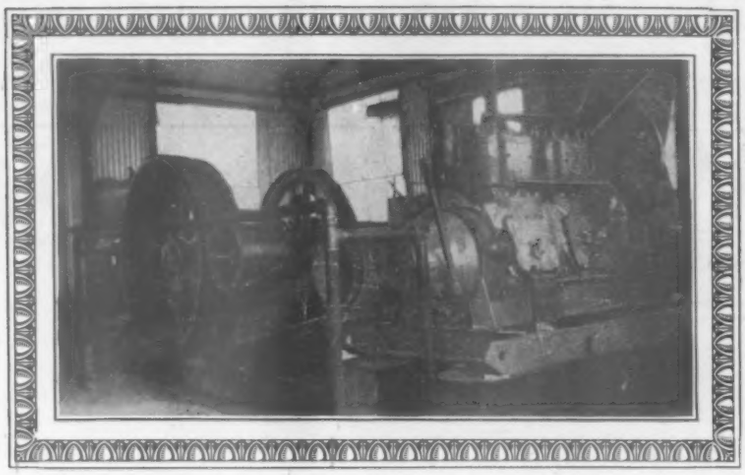
THE FT. WORTH LABORATORIES

Field Gas Testing. Analysis of oil field brines, gas minerals and oil. Sell Thermometers, Hydrometers and Laboratory Glassware

F. B. Porter, B. S., Ch. E., Pres.
R. H. Fash, B. S., Vice-President
828¼ Monroe St. Ft. Worth, Tex.

PATENTS
Patents Obtained, Trade Marks, Patent Causes
JESSE R. STONE
Formerly Assistant Examiner United States Patent Office
Andrews, Streetman, Logue & Mobley
12th Floor Union N. Bk., Houston, Texas

Wanted, to know the whereabouts of MR. H. M. *(Captain)* ANDERSON, formerly superintendent for The Texas Company, around 1920-21. He will learn something of interest to him by communicating with Box 1219, care Oil Weekly, Houston, Texas.



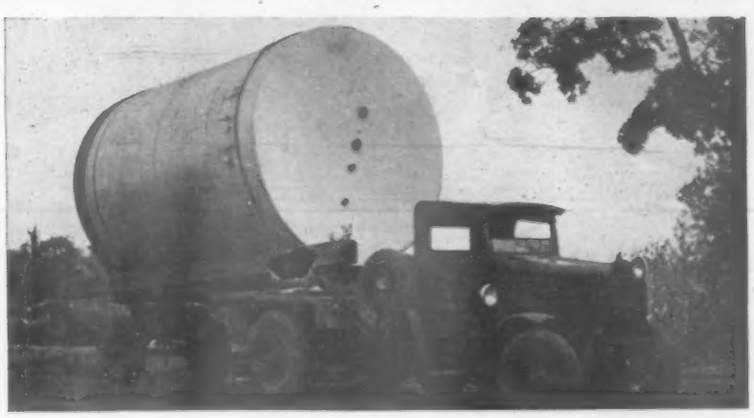
THE type of clutch developed by this Company for heavy duty work is proving itself wel' adapted to oil field conditions. It stands up under the most severe service. This Climax powered gas compressor is a case in point, illustrating the combination of extreme flexibility with rugged strength for which Twin Disc clutches are famous.

We are well equipped to serve manufacturers of oil field production equipment. The experience of our engineers is at your disposal. Write.

TWIN DISC CLUTCH COMPANY

RACINE WISCONSIN

MEAD-MORRISON



This 250 barrel tank loaded quickly with Mead-Morrison No. 915

MOTOR TRUCK

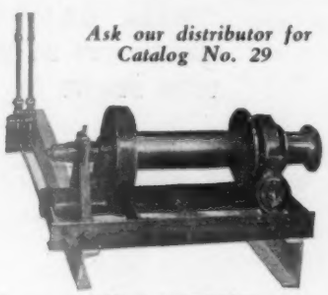
WINCHES

LOAD THEM ALL

LARGE or SMALL

See new model No. 915 at sales room of our nearest distributor.

Ask our distributor for Catalog No. 29



No. 915 Winch

Mead-Morrison Mfg. Co.

1061 Prescott St., Boston, Mass.

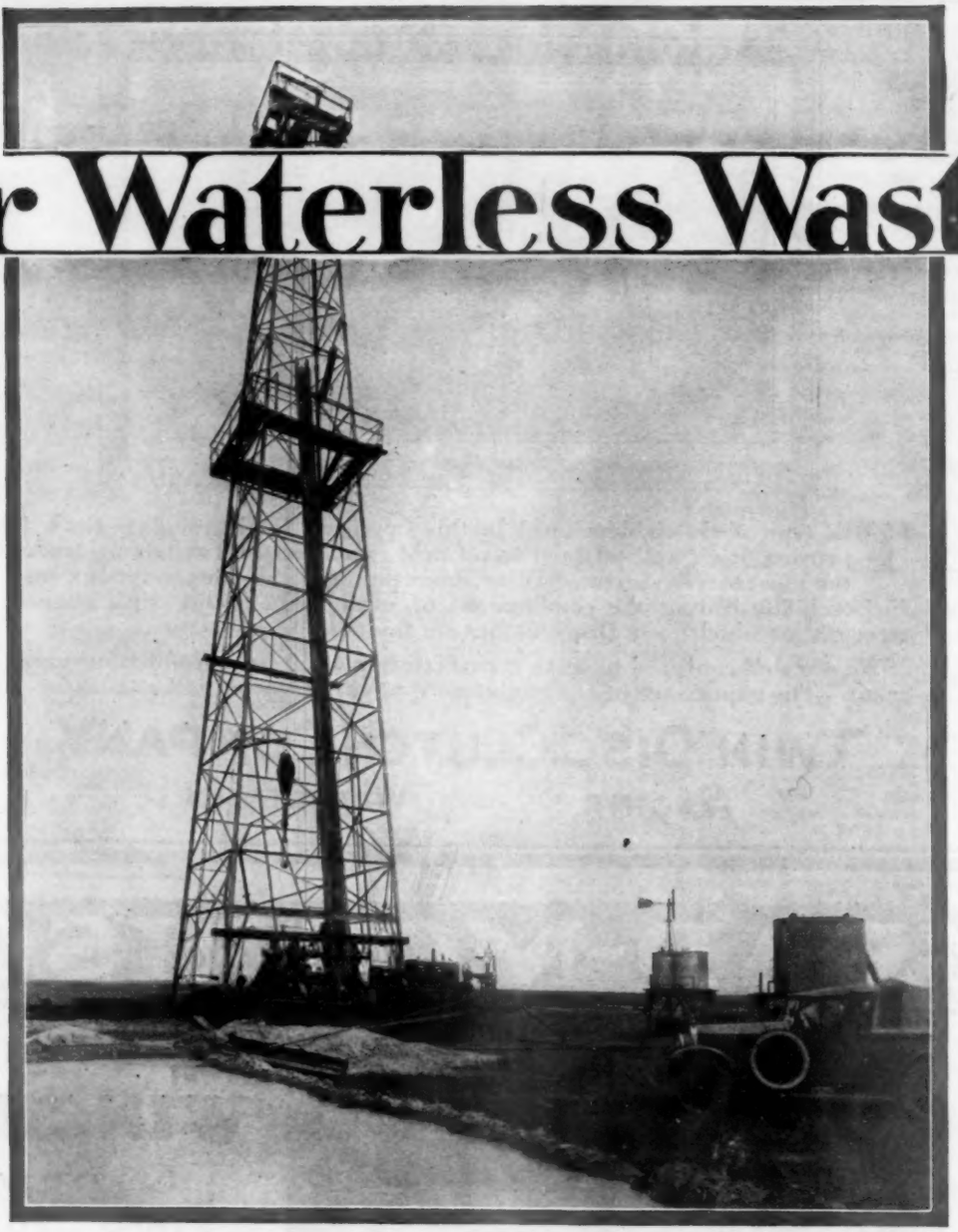
SOUTHWESTERN DISTRIBUTORS

Hobbs Mfg. Co., Fort Worth, Texas
Eller & Grip Co., Houston, Texas

Williamson Motors Inc., Tulsa, Okla.
Nat'l Steel Prod. Co., Kansas City, Mo.

CRANES MOTOR TRUCK WINCHES DERRICKS

For Waterless Wastes



p-851-L

Where water costs more than gasoline it is not a question of steam or gas for power. It is gas every time, whether for "wild cat" drilling or pumping production. And where waste gas or gasoline is used you will always find producers who swear by these reliable Waukesha Oil Field Power Units.

P-865-L

"L-Head Engines—They take better care of themselves."

OIL INDUSTRY EQUIPMENT DIVISION

WAUKESHA MOTOR COMPANY

Waukesha Wisconsin

New York 8 W. 40th St. | Tulsa C. F. Camp Co. | Houston Portable Rig Co. | San Francisco C. A. Watts

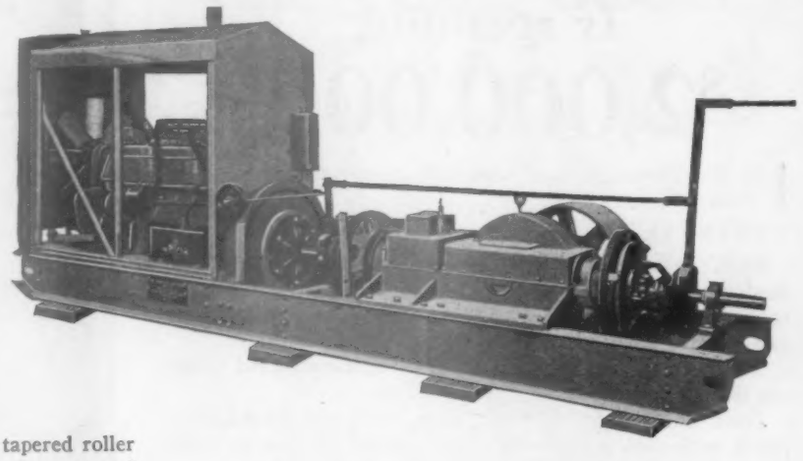
Exclusive Builders of Heavy Duty Gasoline Engines for Over Twenty Years

Say you saw it in The OIL WEEKLY

NEW EQUIPMENT, CATALOGS, BULLETINS, BOOKS

Young Master Six Engine

YOUNG ENGINE CORPORATION



Young Engine Corporation, Canton, Ohio, is offering a heavy duty engine known as "Young's Big Boy," which is designed particularly for drilling deep holes in localities where fuel and water are scarce and expensive.

This engine is a six-cylinder motor of six-inch bore and 7¼-inch stroke which furnishes ample power, operating ecomonically on either gas or gasoline. Standard equipment includes dual ignition, electric starting system, oil purolator and air cleaner. Cooling of the motor is taken care of by sectional type radiator fitted with cast iron tanks.

The heavy transmission, equipped with Timken tapered roller bearings and machine cut gears of a special alloy heat treated steel, running in a bath of oil and all enclosed in a dirt and oil proof case, assure long and dependable service. It has a high and low speed forward and one speed in reverse, with this advantage, that when in low gear, the reverse speed remains the same as high, which is a great time saver. A stiff reverse rod, operated from the derrick floor, controls the friction clutches by which the direction of the belt pulley can be quickly changed without slowing down the motor.

The service brake is of great convenience. With it, the load can be held rigidly at any desired position, particularly in making a "tight hitch."

The engine has been made compact and completely assembled on a steel frame, at the same time keeping the weight to the minimum without sacrificing strength where it is needed. The result is one single unit, well balanced, requiring an inexpensive foundation, and being, thereofer, easily and cheaply moved.

Descriptive matter will be sent upon request, by the manufacturers, the Young Engine Corporation, Canton, Ohio.

Pulleystone

CHICAGO BELTING COMPANY

Chicago Belting Company, 113 North Green Street, Chicago, is offering a new product, "Pulleystone," to be applied to the surface of iron, steel or wood pulleys, and which it is claimed will give them an efficiency equal to or better than a new paper pulley.

It is applied to the small pulley of producing machines and to motor pulleys. If there has been any belt slippage the production output of the machine will immediately pick up and increase.

A pulley covered with a thin coat of Pulleystone is claimed to take hold of the belt as will not other pulley surface and without abrasion.

It is offered on the basis of its being a device for increasing the output of producing machines with existing equipment. No equipment changes are required. All you do is cover the small pulley with Pulleystone. It is recommended for use with all types of belting—leather, rubber, or canvas.

The increase in production output comes primarily from the elimination or reduction in belt slippage. When a belt driven machine is new the drive (with leather belts) has an efficiency of 98 per cent. or higher. But as bearings, belts, etc. wear or as the speed of machine or load is increased beyond what the equipment was purchased to do—slippage develops. On used equipment Pulleystone is claimed to bring the efficiency up to 98 per cent. with existing equipment which results in speeding up the production.

Pulleystone is a plastic material. It spreads over the pulley with the hand and is then smoothed off with the back of the hand dipped in warm water. The surface is then smooth enough to give a very high adhesion. This adhesion increases with service. It can be applied quickly and by any one.

Further information may be had by addressing the company, as above.

Supplement to "Arc Welding—the New Age in Iron and Steel"

The Lincoln Electric Company has recently published a supplement to its 160-page text book, "Arc Welding—The New Age in Iron and Steel." This 32-page book is entitled "How to Begin the Application of Arc Welding in Production Manufacturing."

The bulk of the text is devoted to the redesign of machinery and the principles involved are set forth in such a manner that no designer can fail to find the text helpful.

In developing the theory of arc welded design many lines drawings have been used which show clearly how standard steel shapes are utilized to build up structures which formerly would be cast.

Along with these theoretical designs, however, are shown photographs of similar designs which are in actual use.

The supplement is a convincing proof of the rapid strides which are being made in the substitution of welded steel for cast iron as many of the forecasts made in the original text are seen as proven facts in the supplement.

The Lincoln Electric Company plans to distribute the supplement without charge to all present owners of the parent text book. Individual copies of the supplement can be obtained at a small charge from the company.

Blaw-Knox Company, Pittsburgh, has just issued Bulletin 1057 descriptive of Blaw-Kuox Standard Steel Buildings and their various uses in many lines of industries. This catalog contains 38 pages and is profusely illustrated with photographs of the buildings described as well as drawings giving specifications of construction design. Copies may be had by addressing the company.

THE HOTEL
McALPIN
is spending
$2,000,000

IN the thorough and complete restoration of "New York's Finest Hotel."

EVERYTHING NEW!—

Rich, luxurious carpets and draperies—comfortable, modern furniture—cheerful, spacious, IMMACULATE rooms—all with tiled baths—eleven electric high-speed self-leveling elevators. . . .

These extensive improvements are being effected without the slightest interruption of service.

Next time you're in New York, visit the McAlpin—you'll notice an entirely new atmosphere of luxury, comfort, efficient service and cordial hospitality.

FRANK A. DUGGAN, *President and Managing Director*

HOTEL
McALPIN
ONE BLOCK *from* PENNSYLVANIA STATION
B'WAY *at* 34th ST.

Have a Copy Sent to Your Home

Why depend on reading the "Office Copy" when you can get a copy of The OIL WEEKLY for your own files,—sent to your home each week for

ONLY $1.00 A YEAR

Use the Coupon NOW

- - - - - - - - - - - - - - -

The OIL WEEKLY,
Box 1307, Houston, Texas.

Gentlemen: Please find enclosed one dollar (check or currency will do) for which send me your publication for one year.

Name .....

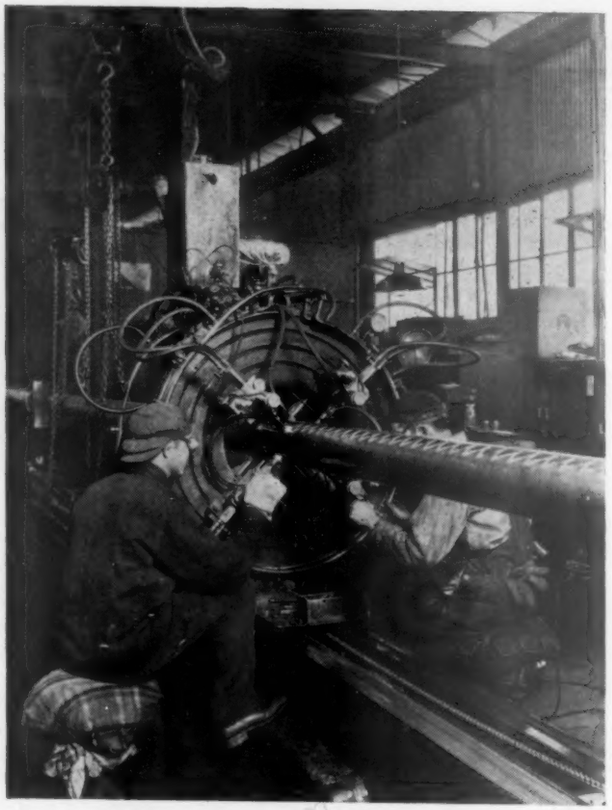
Street and No. .....

City ..... **State** .....

I am with the ..... **Company**

and my position is .....

(BE SURE TO STATE COMPANY AND POSITION, otherwise it will be necessary for us to hold up entering your subscription until we can get this information for you.)



Kobe slotting machine which cuts four slots at one operation.

Los Angeles.—Addition of another large unit to the oil well machinery and equipment manufacturing of Southern California was celebrated Monday, October 22, when Kobe, Inc., manufacturers of Kobe process oil well screen casing, took possession of their new $250,000 plant.

Located at 3040 East Slauson Avenue, Huntington Park, the factory site has a frontage of 427 feet on Slauson and a depth of 322 feet. Shipment of the company's products will be facilitated by Union Pacific spur trackage which runs into the plant. Designed in its entirety by the Union Iron Works of California, which also supplied all structural steel and other material used, the main building is 160 by 175 feet and houses six Kobe Oxy-acetylene pipe slotting machines used in the manufacture of the Kobe heat-treated screen casing.

This main unit is of the sawtooth roof type of construction. Of corrugated iron exterior, it rises from an elevation of 16 feet in front to 30 feet in the rear. The design allows for clear spans of 75 feet in the main part of the building and of 50 foot spans in the smaller parts.

Fronting the main shop structure is a brick and steel administrative building 32½ by 80½ feet, one story in height. At the rear is the oxygen and acetylene storage building measuring 45 by 20 feet.

The entire plant occupies an area of a little over three acres.

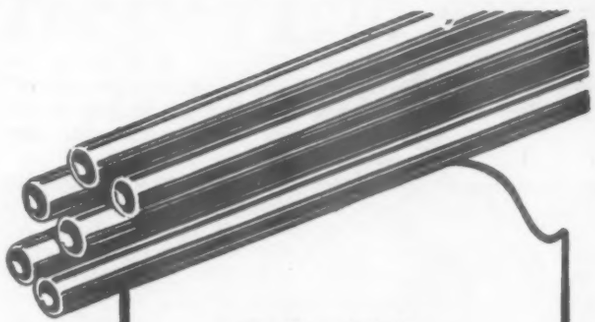
Landis Machine Company, Waynesboro, Pennsylvania, has recently issued Catalog No. 30 which describes Land-Matic Heads, Landex Heads, Lanco Heads, Landis Chasers, Landis Chaser Grinder and Victor Collapsible Taps. This catalog is complete and covers the Landis line of thread cutting die heads and Victor taps thoroughly. The company also has catalogs covering its line of Landis Threading Machines and Landis pipe threading and cutting-off machines and pipe and nipple threading machines. Either of these catalogs will be furnished by the company upon request.

ASCO STEEL
STANDS SUPREME

Every step in the production of Asco Steel is watched closely. From the selection of the raw materials to the finished product, the first thought always is to produce a steel that will give the best results to the makers of Oil Well Tools. Can we help you to produce better tools?

DISTRICT OFFICES:
503 Phil Tower Bldg., Tulsa, Okla.
541 McCormick Bldg., Chicago, Ill.

THE ANDREWS STEEL CO
NEWPORT KENTUCKY



TYLER

Boiler Tubes

Charcoal Iron
for bad water conditions—

Lapweld Steel
for good water conditions—

For long tube life.

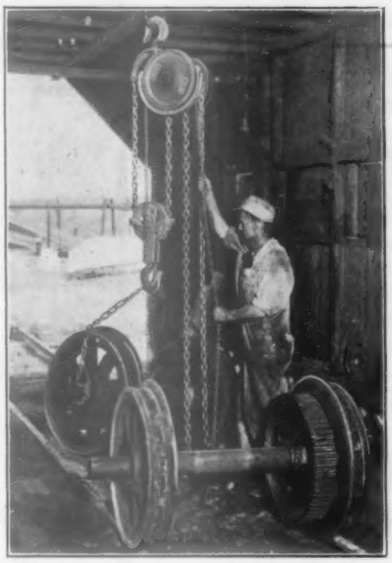
The Tyler Tube & Pipe Co.
Washington, Pa.

Texas Stock—Harrisburg Pipe and Pipe Bending Co., Houston, Texas

Oklahoma Stock—Harrisburg Supply Co., Tulsa, Oklahoma.

TRADE YALE MARK

Yale Chain Blocks
in the Virginia Sayre Slope Mine



THE Yale Chain Block illustrated is of the spur-geared type. Speedy, dependable, easily moved from one job to another, retrucking locomotives is but one of many uses to which this indispensable four ton hoist is put. ¶ Yale Chain Blocks should be an integral part of every modern factory and plant. The industry does not exist which cannot use chain blocks to advantage in material handling. Wherever a load must be lifted a Yale Chain Block can do the work with greater safety and efficiency. ¶ Whether it be of the Spur-Geared, Screw-Geared or Differential Type . . . Yale Chain Blocks are so designed and so manufactured as to give the *maximum maintained efficiency.* Every part of every Yale Chain Block, including the special chain of heat treated steel, is made entirely by Yale to Yale's exclusive specifications that the ultimate in quality, safety and efficiency is assured.

The Yale & Towne Mfg. Co., Stamford, Conn., U. S. A.
Canadian Branch at St. Catharines, Ontario

YALE Hoisting and Conveying Systems
YALE MARKED IS YALE MADE

$3200.00 saved—plus 15 days of "flush"

Nothing like knowing *real facts.* To determine drilling costs, with various tools, the Reese Drilling Company made one well in Seminole with rock cones. The bit cost was a fraction over $6,000.00 and it required 48 drilling days.

A direct off-set well was then drilled with K-P *Straight Hole* Bits. No other bit was used except the rock bit which run several times in the hardest rock formations. *The K-P Bit cost on this well was only* $2,800.00.

K-P *Straight Hole* Bits saved $3,200-.00 and *made the well in 33 drilling days*—but most important, the hole was *straight*—true to gauge—every foot of the way.

K-P
THE LINE OF LEAST RESISTANCE

STRAIGHT HOLE Rotary Drilling Bit

KENNEDYE-PLUMB CORPORATION

Railway Exchange Bldg.,
ST. LOUIS, MO.

Sold by every
"Continental" — "National" —"Oil Well" Supply Company Branch Store

SQUEAKS FROM THE BULL WHEEL

An Englishman was visiting George Washington's home at Mount Vernon. Glancing at the hedge he remarked: "Ah, I see George got his hedge from dear old England."

"You bet your life he did," blurted out his American companion. "He got this whole bloomin' country from dear old England."

Tourist—What's the matter, my man? You look dejected.

Georgia Cracker—Times is terrible. Here I spent two years learning to read, and now comes these talkin' pictures and it ain't necessary.

Alice—Auntie, were you ever in a predicament?

Maiden Aunt—No, dear, but heaven knows I've tried.

"I hear you took a correspondence course in literature, in order to become a good conversationalist?"

"Yes, but it was a waste of time. I know all about the classics and the dead one, but I am sunk when it comes to discussing engine trouble, a hole in one, who are the leading hitters in both leagues, and what to do when your partner trumps your ace."

"In your paper this morning you wrote of my speech at the public meeting last night as the 'insane drivelings of a played-out politician.'"

"What? My dear sir, I am truly sorry if it appeared that way in our paper. The word I used was 'inane.'"

Noah (in cabin)—Water, water, not a thing in sight but water. I think I'm going mad.

Mrs. Noah (entering from aviary)—Oh, there you are, dear. The dove just brought in a postcard for you.

Noah—Great. We're in touch with the outside world at last. What does it say?

Mrs. Noah—It's from your Cousin Fanny, and she just writes: "To Big Boy Noah—Oceans of Love."

(They had dove for dinner.)

"I surely like to take these experienced girls home."

"Why, I'm no experienced girl."

"Naw, and you ain't home yet.'

The Customer—It's wonderful the way you can read that funny writing on those prescriptions.

The Drug Clerk—Some of it is hard to make out. Then we always pick out something harmless and expensive.

"I never saw but one man," said Uncle Bill Bottletop, "that I thought had a chance foolin' with bootleg liquor. He was a swordswallower and fire eater and his wife was a snake charmer."

The lady had lost her husband, and had given instructions to the stone mason as to the wording on the tombstone, the end-to be "Rest in Peace." In the meantime, her late husband's will disclosed the fact that she had been somewhat shabbily treated.

She rushed around to the stone mason and told him to omit the words "Rest in Peace."

"I'm very sorry," he replied, "but they have already been carved."

"Oh, well," said the lady: "add 'Until we meet again."

Dietitian—Yes, a few lettuce leaves, without oil, and a glass of orange juice. There, madam, that completes your daily diet.

Mrs. Overweight—Thank you so much, Doctor, but do I take this before or after meals?

He—You say that woman who moved into the next apartment is a widow?

She—Yes, but I haven't been able to discover yet whether she is living on life insurance money or alimony.

Jim—You said my girl was bowlegged. I'm going to knock your block off.

Jim (thinking fast)—You misunderstood me. I said she was b-e-a-u-legged.

One in Every Office

Everybody knows one or more of those conscientious egotists who cannot rid themselves of the idea that no one can be trusted to carry out the simplest details of routine work without their personal supervision.

It was one of these men who sailed for England, leaving in his brother's care a parrot of which he was very fond. All the way across the Atlantic he worried about the bird, and no sooner had he landed at Southampton than he rushed over this cablegram to his brother: Be sure and feed parrot.

And the brother cabled back: Have fed him, but he's hungry again. What shall I do next?

Impractical Joker—I surely fooled my fraternity brothers. Before they borrowed my car for the week-end, I drained out all the oil so they couldn't get very far.

"I'm going to buy a new gown. What shade would you like to see me in?"

"In the shade of the old apple tree."

She—When a man who bores me terribly asks me where I live I always say in the suburbs.

He—And where do you live?

She—In the suburbs.

A gentleman is a guy who can talk to a chorus girl in her "costume" and say what he is thinking.

Approved for Field and Refinery Service

Stanley

Solid Woven Cotton Belting

Stands the Clamp

Stanley Solid Woven Cotton Belting does not fail at the clamp as do so many belts of less flexibility and resilience.

Why do so many superintendents specify Stanley even though it costs a little more than average?

Made in accordance with A. P. I. Specifications. Write! Wire! Phone!

STANLEY BELTING CORPORATION

15 N. Jefferson St., Chicago
124 Adelaide St., W. Toronto, Ont.
42A Southwark St., S. E. 1, London, England
536 Lyons Avenue, Irvington, N. J.

WAGNER SUPPLY COMPANY OF TEXAS
Forsan Borger Breckenridge Odessa

H. E. Unsell, 119 North A. Street, Arkansas City, Kansas

W. R. Tucker, 5311 Richard Ave., Dallas, Tel. 3-8525

Pacific Coast Rubber Co., 31 Main Street, San Francisco, Cal.

James T. Sullivan, c/o Tulsa Storage & Transfer Co., Tulsa, Okla. Phone 4-0151

STANLEY BELTING — MADE IN SCOTLAND

500 E. 3rd St., Los Angeles, Cal.

POINTERS on Steel Derricks

Cutting down on the "Cussing" that costs

The Drilling Crew seldom cusses the rig builders who have put up an O'Brien Derrick, because during erection the Rig Building Crew haven't been cussing either.

O'Briens are mighty easy to erect. And mighty strong and dependable — once erected.

Why Experiment? O'Brien Derricks will drill your wells and pull your casing.

O'BRIEN STEEL CONSTRUCTION COMPANY, INC.

Washington, Pennsylvania

Western Representatives: RIG EQUIPMENT COMPANY, 1524 South St. Louis St., Tulsa, Okla.

For Strength and Uniformity Use

Murray Tool & Supply Co., Tulsa, Oklahoma
T. T. Word Supply Co., Houston, Texas
A. F. Keck & Co., Butler, Pa.
Wickwire Spencer Sales Co., 1310 The Philtower, Tulsa, Okla.

WICKWIRE SPENCER STEEL COMPANY
39 East 42nd St., New York, N. Y.

WICKWIRE SPENCER STEEL

WICKWIRE SPENCER UNIFORM WIRE ROPE
tests better than A. P. I. specifications

Union Acme Hoist

Sizes ¼, ½, 1 and 1½ Tons. A Quick Acting Hoist, Light Weight, Easily Carried Around.

The empty bottom hook can be raised to load by simply pulling slack of load chain.

It can be lowered to load by pulling cord, which releases ratchet, with the other hand pull hook down to load.

Pressed Steel Plate Construction, Heat treated Cut Steel Gears. Solid steel suspension from hook to hook.

New Complete Hoist Catalog now ready. Sent on request.

UNION MANUFACTURING CO.

NEW BRITAIN, CONN.

Branch Offices where Stock is Carried:

New York City, 26 Cortlandt St.
Chicago, Ill., 25 So. Jefferson St.
San Francisco, 770 Folsom St.
Cincinnati, Ohio, 306 Sycamore St.
Houston, Texas, Mr. I. Van Tassel, 705 First National Bank Bldg.

Gulf Refining Company

OKLAHOMA
TEXAS
LOUISIANA

Refiners of PETROLEUM

GASOLINE
REFINED OIL
NAPHTHA
GAS OILS
PARAFFINE WAX
PETROLEUM COKE
FUEL OIL
LUBRICATING OILS
CYLINDER
ENGINE
CORDAGE

Red and Pale Paraffine Oils

General Sales Offices: PITTSBURGH, PA.

District Sales Offices:

NEW YORK, HOUSTON, ATLANTA, BOSTON, NEW ORLEANS
PHILADELPHIA, LOUISVILLE

Ocean Terminals:

Boston (Beverly), Mass.
Providence, R. I.
New York Harbor (Bayonne, N. J.)
Jacksonville, Fla.
Port Tampa, Fla.
Mobile (Magazine Point, Ala.)
Philadelphia (Giraud Point, Pa.)
Charleston, S. C.
Savannah, Ga.
New Orleans (Gretna, La.)
Port Arthur, Texas.
Galveston, Texas

"I don't go pipe fishing anymore—

"since I gave up using ordinary couplings years ago and standardized on Harrisburg.

"Harrisburg Forged Seamless Steel Couplings are always reliable, always uniform—always dependable. And they *ought to be,* for Harrisburg owns its own open hearth furnaces, rolling mills and forge shops—produces its own steel and controls every operation from ingot to finished coupling.

"Take my advice and let Harrisburg take care of your coupling requirements—and when I say 'take care of 'em, I don't mean mebbe.' "

HARRISBURG PIPE & PIPE BENDING CO.

Harrisburg, Pa.

Fully Equipped with Our Own Open Hearth Furnaces, Rolling Mills and Forge Shops.

DISTRIBUTORS:

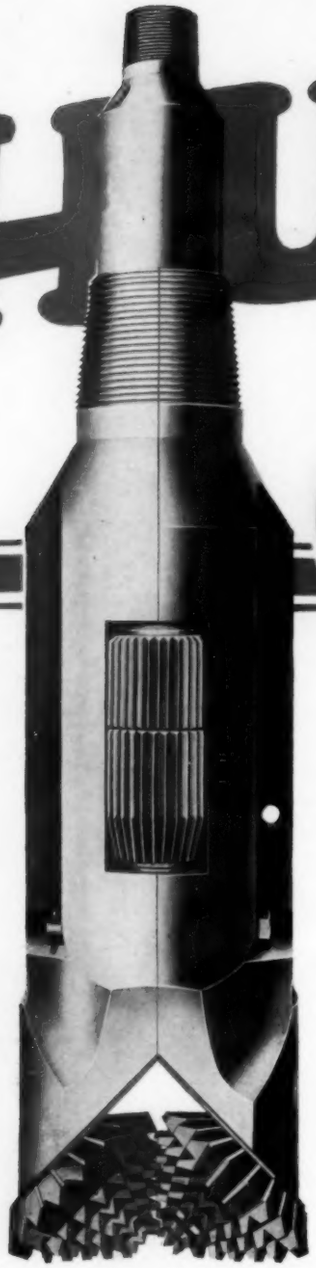
Harrisburg Pipe & Pipe Bending Co. of Texas, Inc., Houston, Texas
Harrisburg Supply Co., Tulsa, Oklahoma.
George J. Hausen, Inc., San Francisco, Los Angeles and Taft, California.

HARRISBURG

Forged Seamless Steel Couplings

HUGHES

SIMPLEX ROCK BIT CONES



—are the result of more than 18 years of constant Laboratory research and Field experience—as evidenced by their superior performance throughout the Rotary Fields of the World.

Sold By Supply Stores Everywhere

HUGHES TOOL COMPANY

Service Plants
LOS ANGELES, CALIF.
OKLAHOMA CITY, OKLA.

MAIN OFFICE AND PLANT
HOUSTON, TEXAS

Export Office
NEW YORK CITY, N.Y.